



Chapter 17

Fiscal policy and the Stability Pact

Chapter Contents

17.1	Fiscal policy in the monetary union	414
17.2	Fiscal policy externalities	418
17.3	Principles	421
17.4	The Stability and Growth Pact	427
17.5	The macroeconomic imbalance procedure	438
17.6	Summary	439

Introduction

With the loss of monetary policy as a macroeconomic stabilization instrument, fiscal policy may assume greater importance in a monetary union. However, national fiscal policies affect other countries in a number of different ways. Do these spillover effects also call for sharing the fiscal policy instrument? This chapter first reviews how fiscal policy operates across national boundaries and presents the principles that can help to decide whether some limits on national decisions are in order. This lays the ground for an understanding of the Stability and Growth Pact. The chapter next examines the Pact's impact on policy choices and the controversies that have arisen as its shortcomings become more evident. It concludes with a description of a new pact, the Euro Plus Pact.

17.1 Fiscal policy in the monetary union

17.1.1 An ever more important instrument?

When joining a monetary union a country gives up one of its two macroeconomic instruments – monetary policy – but retains full control of the other – fiscal policy. Without national monetary policy, fiscal policy is the only instrument remaining with which to deal with asymmetric shocks when they arise. From this perspective, fiscal policy assumes crucial importance for smoothing national output and employment fluctuations and, through the impact of prices along the aggregate supply schedule, inflation too. As seen in Chapter 13, in a rigidly fixed exchange rate regime like the monetary union, the *MP* schedule is irrelevant given the loss of monetary autonomy, but the *IS* schedule can be shifted with fiscal policy.

Unfortunately, fiscal policy is unlikely to be a good substitute for monetary policy. It is a very different instrument, more difficult to activate and less reliable than monetary policy. Importantly, it can be misused, and is often misused, when governments ignore the need to eventually balance their budgets.

Indeed, changes in public spending and/or taxes impact on the budget balance, which immediately raises the question of the financing of public debt. Consider, for instance, a cut in income taxes designed to increase private spending. A tax cut creates a budget deficit. The government will have to borrow and thus increase the public debt, but how will this new debt be reimbursed? If, as is plausible, taxes are eventually raised, the policy action is properly seen as the combination of a tax reduction today and a tax increase later. This is an action unlikely to boost private consumption once taxpayers realize that the benefit today will be offset by an equivalent cost in the future.¹

In comparison with monetary policy, fiscal policy faces a major additional drawback: it is very slow to implement. A central bank can decide to change the interest rate whenever it deems it necessary, and can do so in a matter of seconds. Not so for fiscal policy. Establishing the budget is a long and complicated process. The government must first agree on the budget, with lots of heavy-handed negotiations among ministers. The budget must then be approved by the parliament, a time-consuming and highly political process. Then spending decisions must be enacted through the bureaucracy, and taxes can be changed only gradually as they are never retroactive. For example, income taxes can affect only future incomes, implying long delays, even though, once implemented, fiscal policy actions tend to have a more rapid effect on the economy (6 to 12 months) than monetary policy (12 to 24 months). Ultimately, fiscal policy is like a tanker: it changes course very slowly. The delay may even be such that, when fiscal policy finally affects the economy, the problem that it was meant to solve has disappeared.

In much the same way as unrestrained monetary policy eventually delivers inflation, undisciplined fiscal policy results in high public indebtedness. The crisis has shown that allowing debts to grow can destabilize a country and that the phenomenon may be contagious within the Eurozone. The inflation bias, the tendency to use monetary policy unwisely, has been reduced by making central banks independent from governments that tend to favour short-term gains (revenue from inflation) at the expense of long-term pain (getting rid of inflation once it has been unleashed). The same political instincts are the source of a deficit bias, which is examined in Section 17.2.4. The deficit bias remains a feature of several

¹ The extreme case whereby consumers save all of the tax reduction to pay for future tax increases is called Ricardian equivalence. It is explained, and its empirical validity assessed, in, for example, Burda and Wyplosz (2017).

Eurozone countries, which calls for remedial action. This is the *raison d'être* of the Stability and Growth Pact, presented in Section 17.4.

17.1.2 Borrowing instead of transfers

Another way of looking at fiscal policy is that the government borrows and pays back on behalf of its citizens. During a slowdown, the government opens up a budget deficit that is financed through public borrowing. In an upswing, the government runs a budget surplus in order to pay back its debt. A government that borrows to reduce taxes now and raises taxes later to pay back its debt is, in effect, lending to its citizens now and making them pay back later. Individual citizens and firms could, in principle, do it on their own, borrowing in bad years and paying back in good years. This would have the same stabilizing effect as fiscal policy. Is fiscal policy a futile exercise or, worse, a bad political trick? Not quite.

To start with, note that in the previous example the government simply acts as a bank vis-à-vis its citizens. The reason why it may make sense is that, when the economy slows down, lending becomes generally riskier and banks become very cautious. Many citizens and firms cannot borrow in bad times, or can only borrow at high cost. Indeed, their banks consider workers who lose their jobs as a bad risk, and the same applies regarding firms that face sagging profits or even losses. When governments are considered a good risk, they can borrow at all times at reasonably low cost. This is why counter-cyclical fiscal policies can be effective.

An additional reason is related to one of the optimum currency area criteria examined in Chapter 15: the desirability of substantial inter-country transfers. In that dimension, Europe was found to do very poorly. Using fiscal policy can substitute for transfers. When a country faces an adverse asymmetric shock, its government can borrow from countries that are not affected by the shock. This is the equivalent of a transfer: instead of receiving a loan or a grant² from other Eurozone governments or from 'Brussels', the adversely affected country's government borrows. In this way, fiscal policy makes up for the absence of 'federal' transfers in a monetary union.

17.1.3 Automatic stabilizers and discretionary policy actions

Automatic stabilizers

Fiscal policy has one important advantage, though: it tends to be spontaneously counter-cyclical. When the economy slows down, individual incomes are disappointingly low, corporate profits decline and spending is rather weak. This all means that tax collection declines: revenues from income taxes, profit taxes, VAT, and so on, are less than they would be in normal conditions. At the same time, spending on unemployment benefits and on other subsidies rises. All in all, the budget worsens and fiscal policy is automatically expansionary. These various effects are called the automatic stabilizers of fiscal policy. Importantly, they result from the application of existing legislation and do not require, therefore, any decision by the government and approval by the parliament.

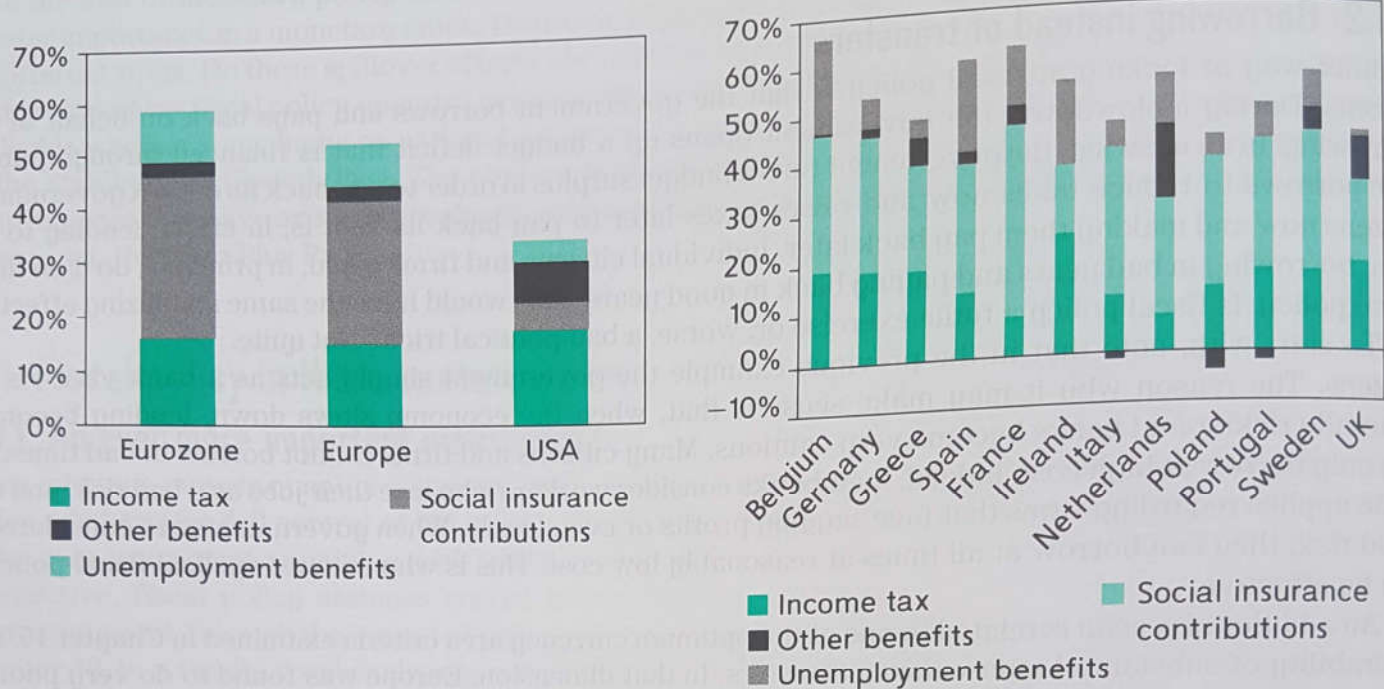
Figure 17.1 presents estimates of how the automatic stabilizers work. It shows the proportion of income loss that is compensated by various redistributive mechanisms when total incomes decline by 5 per cent. The mechanisms are: the income tax, the unemployment benefits, social contributions and various other benefits. The left-hand chart compares the stabilizers in the EU, the Eurozone and the USA. Their role is lower in the USA (a third is compensated) than in Europe and, even more in the Eurozone, mainly because social insurance contributions are smaller. There are also important differences within Europe.³

Discretionary fiscal policy

The automatic stabilizers just happen. Discretionary fiscal policy, on the contrary, requires explicit decisions to change taxes or spending. As noted above, such decisions are slow to be made and implemented. This is why, in some countries, the budget law sets aside some funds – called rainy day funds – that can be quickly

² A grant is not to be reimbursed, but a collective system of grants implies that any country is supposed to be alternately giving and receiving, the total hopefully averaging zero over the long run. This is no different from long-term borrowing – receiving now, paying back later.

³ Note that in some cases, workers lose access to 'other benefits' when they become unemployed, which reduces the multiplier.

Figure 17.1 Size of stabilizers in 2014 (per cent of compensated income loss)

Source: Based on data from Dolls et al. (2018)

mobilized by the government if discretionary action is needed. Even then, the amounts are small and their use is often politically controversial.

An implication of the existence of automatic stabilizers is that the budget figures do not reveal the government actions. Indeed, the budget can change for two reasons. An increase in the budget balance may reflect explicit actions, for example a cut in spending or an increase in some tax rates; this is called discretionary policy. Alternatively, it may result from an economic expansion; this is what the automatic stabilizers do. In order to disentangle these two factors, it is convenient to look at the cyclically adjusted budget. This procedure is based on the output gap concept. The gap measures the difference between actual GDP and the GDP level that corresponds to a situation of neither a boom nor a recession. A negative gap, for instance, indicates that the economy is underperforming – that it operates below its potential. The cyclically adjusted budget balance is an estimate of what the balance would be in a given year if the output gap were zero. When output is below potential, that is, when the output gap is negative, because tax receipts have declined alongside lower revenues, the actual budget balance is lower than the cyclically adjusted budget balance and, conversely, when the output gap is positive. Any difference between the actual and cyclically adjusted budget balances captures the working of the automatic stabilizers. Changes in the cyclically adjusted budget reflect discretionary fiscal policies.

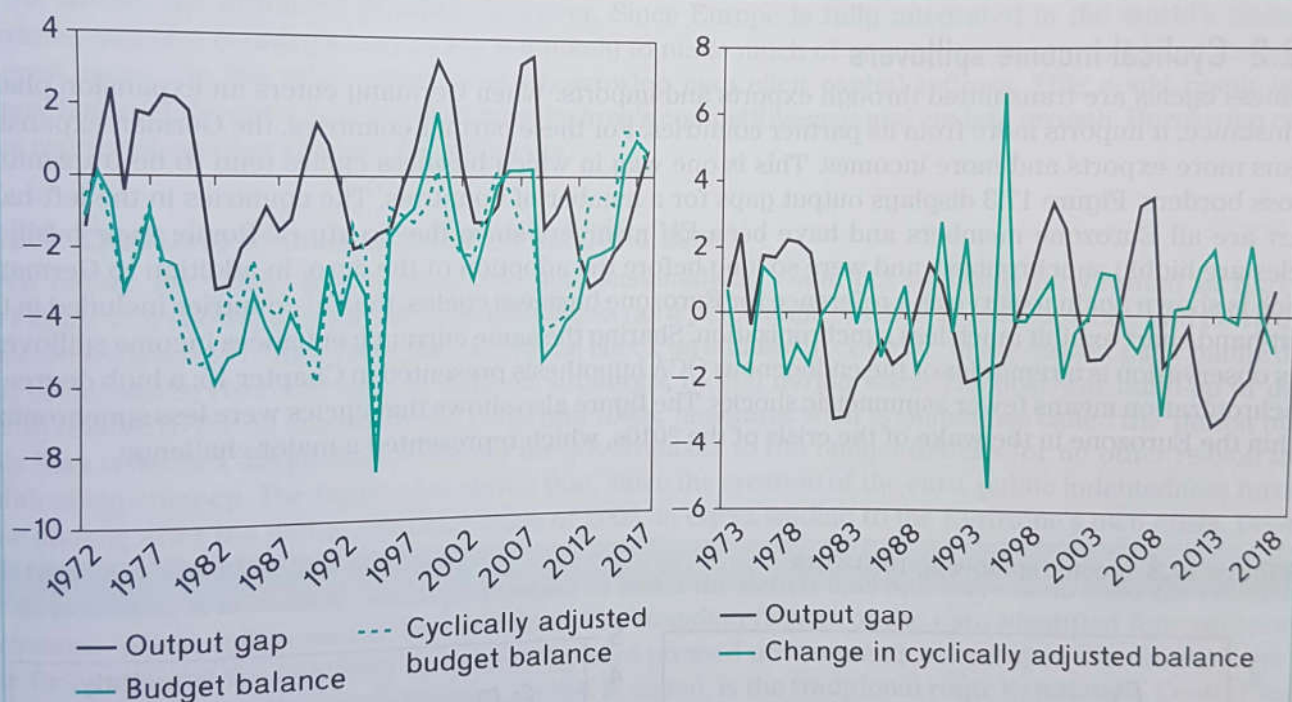
The cyclically adjusted budget balance is a reliable gauge of the stance of fiscal policy since it separates discretionary government actions from the cyclical effects of the automatic stabilizers. An improvement indicates that the government tightens fiscal policy whereas an expansionary fiscal policy worsens the cyclically adjusted budget balance. If the government never changed its fiscal policy, the cyclically adjusted budget balance would remain constant, at least to a first approximation.⁴ Box 17.1 illustrates this point in the case of the Netherlands. These two issues – the role of the automatic stabilizers and the distinction between the actual and cyclically adjusted budgets – play a crucial role in what follows.

⁴ Why to a first approximation? Because, as the economy grows, more people climb the income ladder and face higher tax rates. Also, the structure of the economy changes, possibly changing the way taxes are collected.

Box 17.1 Decrypting fiscal policy in the Netherlands

The left-hand chart in Figure 17.2 displays the output gap along with the actual and cyclically adjusted budget balances of the Netherlands. Note first that the actual balance generally moves in tandem with the output gap, an indication that the automatic stabilizers are at work. Note also the trend improvement in the budget over the 1990s. This occurred partly as a result of government efforts to meet the Maastricht entry conditions, as shown by the reduction of the cyclically adjusted deficit, and partly because a rising output gap – except for the recession in 1995 – made it easier to meet those conditions thanks to the automatic stabilizers. The financial crisis that began in 2007 then caused the Dutch economy to contract sharply; both actual and cyclically adjusted balances went into large deficits. The government soon moved to close these deficits, explicitly to meet the requirements of the Stability and Growth Pact.

Figure 17.2 Actual and cyclically adjusted budgets in the Netherlands, 1972–2018



Note: All variables are measured as a percentage of GDP.

Source: Based on data from *Economic Outlook*, OECD.

When fiscal policy is counter-cyclical, that is, when it attempts to limit GDP fluctuations, the cyclically adjusted budget should decline along with the output gap, possibly a year ahead given the time that it takes to produce its effect. The right-hand chart, which plots the output gap and the change in the cyclically adjusted budget balance, reveals that this prescription has not often been followed in the Netherlands. For example, during the Eurozone crisis, the output gap became sharply negative and yet the government carried out a pro-cyclical, contractionary fiscal policy as shown by negative changes in the cyclically adjusted budget balance. The left-hand chart shows that the actual budget deficit did not close as fast, due to the impact of the automatic stabilizers, which always are counter-cyclical.

17.2 Fiscal policy externalities

17.2.1 Spillovers: a case for policy coordination

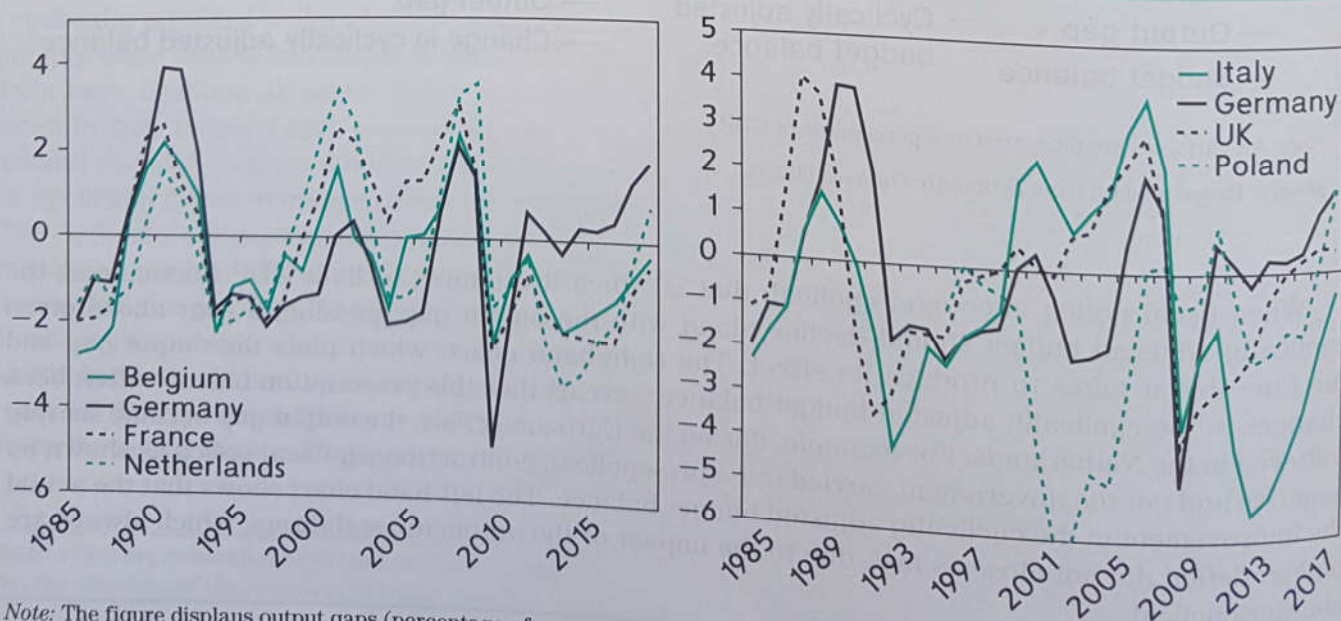
So far, we have looked at individual countries. But fiscal policy actions by one country may spill over to other countries through a variety of channels, such as trade, inflation, borrowing costs and even financial distress. Such spillovers, called externalities, mean that one country's fiscal policy actions can help or hurt other countries. When the externalities are significant, fiscal policy coordination helps. In theory, all concerned countries could agree on one another's fiscal policy to achieve a situation that benefits them all. In practice, coordination is quite difficult, because fiscal policy is highly political in every country.

Within the Eurozone, fiscal policies remain a national prerogative. Yet, the setting up of a monetary union strengthens the case for fiscal policy coordination as it promotes deeper ties. However, fiscal policy coordination requires binding agreements, defining who does what and when, which would limit each country's sovereignty. The question is whether sharing the same currency increases the spillovers to the point where some new limits on sovereignty are desirable and justified. To answer this highly controversial question, we review the channels through which spillovers occur and examine what difference the Eurozone makes.

17.2.2 Cyclical income spillovers

Business cycles are transmitted through exports and imports. When Germany enters an expansion phase, for instance, it imports more from its partner countries. For these partner countries, the German expansion means more exports and more incomes. This is one way in which business cycles tend to be transmitted across borders. Figure 17.3 displays output gaps for a number of countries. The countries in the left-hand chart are all Eurozone members and have been EU members since the Treaty of Rome; their business cycles are highly synchronized, and were so long before the adoption of the euro. In addition to Germany, which is shown again to serve as a reference for Eurozone business cycles, the EU countries included in the right-hand chart exhibit much less synchronization. Sharing the same currency enhances income spillovers. This observation is a reminder of the endogenous OCA hypothesis presented in Chapter 15: a high degree of synchronization means fewer asymmetric shocks. The figure also shows that cycles were less synchronized within the Eurozone in the wake of the crisis of the 2010s, which represented a major challenge.

Figure 17.3 Income spillovers, 1970–2018



Note: The figure displays output gaps (percentage of potential GDP).

Source: Based on data from *Economic Outlook*, OECD.

What does this mean for national fiscal policies? Consider, first, the case when two monetary union member countries undergo synchronized cycles, for example both suffer a recession. Each government will want to adopt an expansionary fiscal policy, but to what extent? If each government ignores the action of the other, their combined actions may be too strong; if, instead, each government relies on the other to do most of the work, too little might be done to pull each economy out of recession. Consider next the case when the cycles are asynchronised. An expansionary fiscal policy in the country undergoing a slowdown stands to boost spending in the already booming country. Conversely, a contractionary fiscal policy move in the booming country stands to deepen the recession in the other country. These examples show that there is ample room for mutually beneficial cooperation.

17.2.3 Borrowing cost spillovers

A fiscal expansion increases public borrowing or reduces public saving. As the government is usually the country's biggest borrower, large budget deficits may push interest rates up. Once they share the same currency, Eurozone member countries share the same interest rate. One country's deficits, especially if the country is large and its deficits sizeable, may impose higher interest rates throughout the Eurozone.⁵ As high interest rates deter investment, they negatively affect long-term growth. This is another spillover channel.

As stated, the argument is weak, however. Since Europe is fully integrated in the world's financial markets, any one country's borrowing is unlikely to make much of an impression on world and European interest rates. On the other hand, heavy borrowing may elicit capital inflows. This could result in an appreciation of the euro, which would hurt the area's competitiveness and cut into growth. Borrowing costs thus represent another channel for spillovers.

17.2.4 Excessive deficits and the no-bailout clause

Even before the crisis, it was clear that debt sustainability could not be taken for granted in Europe. As Figure 17.4 shows, overall public indebtedness (as a percentage of GDP) in the Eurozone had more than doubled between 1977 and 1996, just before the check on admission criteria.⁶ In the distant past, public debt had occasionally risen but only in difficult situations, mostly during wars. The post-war build-up of debt, partly related to the oil shocks of the 1970s and 1980s, illustrates what is sometimes called the 'deficit bias'. This bias reflects a disquieting tendency for governments to run budget deficits for no other reason than political expediency. The figure also shows that, since the creation of the euro, public indebtedness further rose steeply after the global financial crisis of 2008, in effect leading to the Eurozone's own crisis. Does it call for a specific collective measure?

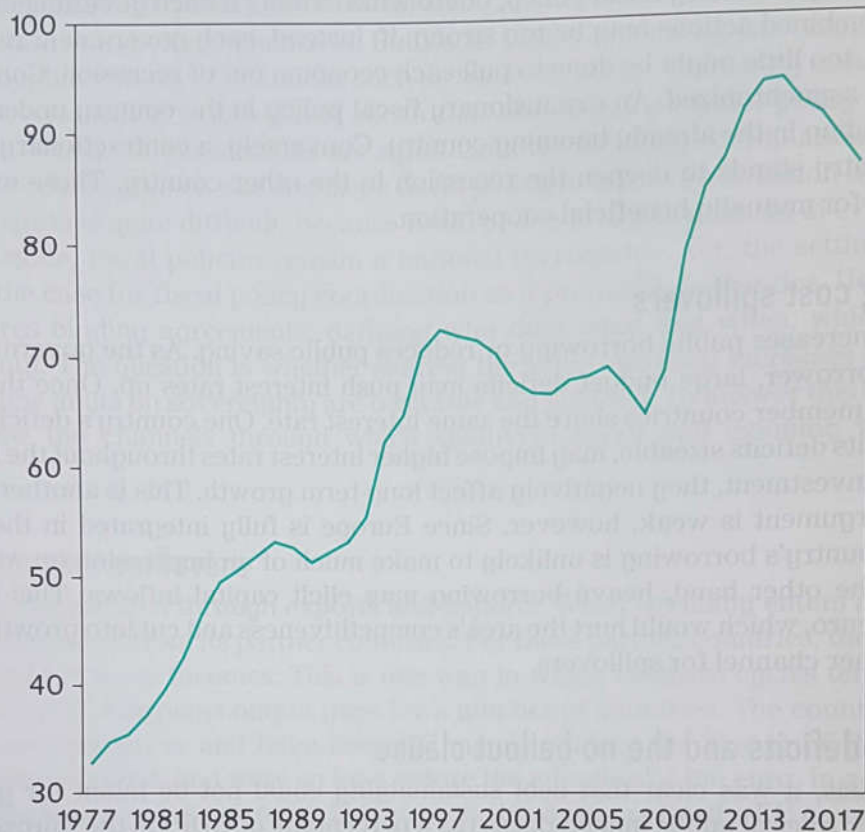
In principle, it is in each country's interest to resist the deficit bias and there is no need for collective measures, unless spillovers can be identified. The founding fathers of the euro identified four spillovers. The first concerns the tendency of financially hard-pressed governments to call upon the central bank to finance their deficits. Debt monetization, as this is called, is the traditional route to inflation. Central bank independence from government is the proper response and, as noted in Chapter 16, the Eurosystem indeed enjoys very strong independence.

Second, heavy public borrowing by one country is a sign of fiscal indiscipline that could trouble the international financial markets. If markets believe that one country's public debt is unsustainable, they could view the whole Eurozone with suspicion. The result would be sizeable capital outflows and euro weakness. This is precisely what happened in 2010–11 within the Eurozone.

There is a third potential spillover. A government that accumulates a debt that it can no longer service must eventually default. Experience of public debt defaults shows that the immediate reaction is a massive capital outflow, a collapse of the exchange rate and stock markets, and a prolonged crisis complete with a deep recession and skyrocketing unemployment. Being part of a monetary union changes things radically. It is now the common exchange rate that is the object of the market reaction. The spillover can further extend to stock markets throughout the whole monetary union.

⁵ According to Jürgen Stark, a high-level German official who was influential in designing the Stability and Growth Pact: 'The state's absorption of resources which would otherwise have found their way into private investments results in higher long-term interest rates' (2001, p. 79).

⁶ This is the debt for the whole zone. The situation differs from country to country.

Figure 17.4 The Eurozone's public debt (% of GDP), 1977–2018

Source: AMECO, European Commission.

A further fear is that the mere threat of one member country's default would so concern all other member governments that they would feel obliged to bail out the nearly bankrupt government. This last risk has been clearly identified in the Maastricht Treaty, which included a 'no-bailout' clause. Article 125 of the European Treaty forbids all public institutions, including governments, to provide direct support to a Eurozone government. Article 123 does the same regarding the ECB. Yet it always was an open question whether, in the midst of an emergency, some arrangement could still be found to bail out a near-bankrupt government. For example, the ECB could be 'informally' pressed to relax its monetary policy to make general credit more abundant at a lower cost, which eventually would result in inflation. More generally, it was feared that a sovereign default would badly affect the Eurozone and undermine its credibility. We will see in Chapter 19 that the no-bailout clause was effectively ignored in May 2010.

17.2.5 The deficit bias and collective discipline

Why do many governments seem to have a deficit bias, and why does this bias seem to differ from country to country, as can be seen in Table 17.1? Deficits allow governments to deliver goods and services today, including jobs to civil servants and transfers to the needy, but without facing the costs, in effect passing the burden to future governments or even to future generations. It is tempting to do so, especially when elections are near, but adequate democratic accountability should prevent governments from indulging in doing so. Even though future generations are not here to weigh in, the current generation may reasonably expect to be called upon to service the debt, and anyway most people care about the next generation. A debt build-up often reflects a failure of democratic control over governments. Why has this been happening in Europe's democracies?

Public spending is an important source of income for all sorts of citizens, organizations and firms. Taxpayers, current or future, must pay for it. Those who receive money from the government hope that

Table 17.1 Public debt within Europe (% of GDP), 2018

Austria 80.3	Belgium 101.7	Bulgaria 23.1	Croatia 69.0	Cyprus 122.2	Czech Rep. 44.4
Denmark 43.5	Estonia 9.8	Finland 59.9	France 95.6	Germany 76.0	Greece 177.2
Hungary 80.3	Ireland 121.0	Italy 135.2	Latvia 39.5	Lithuania 41.8	Luxembourg 23.4
Malta 72.5	Netherlands 73.8	Poland 49.2	Portugal 126.7	Romania 39.9	Slovakia 56.3
Slovenia 80.4	Spain 100.2	Sweden 41.6	United Kingdom 91.8	EU 89.5	Eurozone 96.0

Source: Based on data from AMECO, European Commission.

they will not pay the corresponding taxes, or at least not fully. It is in the interest of every recipient of public spending to ask for more. In fact, they often form well-organized and influential interest groups. Democratically elected governments are naturally inclined to please interest groups without raising taxes. This is what lies behind the widespread bias towards deficits. The importance of the bias depends on the electoral process. For instance, parliamentary regimes that involve large coalitions seem to be doing less well at keeping deficits in check.

Changing the democratic regime (the form of democracy, how elections are organized, etc.) could help, but it is a rather intractable endeavour. This is why some governments find it appealing to seek external restraint and to invoke 'Brussels' as a scapegoat that can be blamed when resisting interest groups and political friends. Collective discipline, even if not necessarily justified by spillovers, can be used as a substitute for adequate domestic institutions.

17.3 Principles

The existence of spillovers is one argument for sharing policy responsibilities among independent countries but powerful counter-arguments exist. The broader question is, at which level of government – regional, national, supranational – should policies be conducted? The theory of fiscal federalism deals with this question. The principle of subsidiarity is another way of approaching the issue. Both approaches are presented in detail in Chapter 3; they are briefly recalled in this section with a particular emphasis on fiscal policy.

17.3.1 Fiscal federalism

The theory of fiscal federalism asks how, in one country, fiscal responsibilities should be assigned between the various levels (national, regional, municipal) of government. It can be transposed to Europe's case, even though Europe is not a federation, by asking which tasks should remain in national – possibly regional – federal states – hands and which should be a shared responsibility, that is, delegated to Brussels. There are two good reasons to transfer responsibility to Brussels and two good reasons to keep it at the national level. An additional concern is the quality of government at the national and supranational levels. In many ways, this reasoning is remindful of the OCA theory, and for a good reason: a common currency is fundamentally a federal institution.

Two arguments for sharing responsibilities: externalities and increasing returns to scale

As noted before, **spillovers** lead to inefficient outcomes when each country is free to act as it wishes. Sometimes too much action is taken, sometimes not enough. In addition some policies are more efficient

when carried out on a large scale. **Increasing returns to scale** can be found in the use of money,⁷ in the design of commercial law or in defence (army, weapons development and production), among others.

One solution is coordination, which preserves sovereignty but calls for repeated and often-piecemeal negotiations, with no guarantee of success. Another solution is to give up sovereignty, partly or completely, and delegate a task to a supranational institution. In Europe, some important tasks have already been delegated to the European Commission under the name of shared competences (the internal market and trade negotiations) and to the Eurosystem (monetary policy).

Two arguments for retaining sovereignty: heterogeneity of preferences and information asymmetries

Consider the example of common law concerning family life (marriage and divorce, raising children, dealing with ageing parents, etc.). Practices and traditions differ across countries, sometimes to a considerable extent. In this domain, preferences are heterogeneous and a supranational arrangement is bound to create much dissatisfaction.

Now consider decisions regarding roads: where to build them, how large to make them, where to set up traffic lights, and so on. These require a thorough understanding of how people move, or wish to move, in a specific geographic area. It is a case of *information asymmetry*: the information is more readily available at the local level than at a global level.

Heterogeneity of preferences and information asymmetries imply that, in these matters, it would be inefficient to share competence at a supranational level. Much of the criticism levelled at 'Brussels' concerns cases where either heterogeneity or information asymmetries are important: deciding on the appropriate size of cheese or the way to brew beer is best left to national governments, even to local authorities, no matter how important are the externalities (public health is the mantra used by the Commission to expand its power in food-related matters) or even the existence of important increasing returns to scale.

The quality of government

An implicit assumption so far is that governments always act in the best interest of their citizens. While this may generally be the case, there are numerous instances when governments either pursue their own agenda or are captured by interest groups. In addition, like any institution, governments often wish to extend their domain, possibly in order to increase their own power or because they genuinely believe that they do a better job than lower-level jurisdictions. One can question whether there is such a thing as 'the best interest of citizens': some citizens favour some actions which others dislike. Governments exist in part to deal with such conflict and do so under democratic control, but elections cannot sanction every one of the millions of decisions that favour well-connected interests. In spite of all the good things that can be said about democracy, it is not a perfect system.

What to conclude?

Good reasons exist for both centralizing and decentralizing particular tasks. The theory of fiscal federalism does not provide a general answer; rather, it argues in favour of a case-by-case approach and suggests that, often, we face trade-offs with no compelling answer. To make things even murkier, the observation that governments are not perfect, merely human, means that we need always to keep in mind that a good solution may transpire to be bad if the government is misbehaving. In particular, the quality of both government and democratic control ought to be brought into the picture. The practical question here is whether Brussels performs better than the national governments.

17.3.2 The principle of subsidiarity

It should be clear by now that the four arguments for and against centralization at the EU level are unlikely to lead to clear-cut conclusions, and the warning about the quality of government further complicates the issue. Weighing the various arguments and trading off the pros and cons is often mission impossible, hence another question arises: where should the burden of proof lie? The EU has taken the view that the burden

⁷ Chapter 15 explains why this is a key benefit resulting from forming a currency area.

of proof lies with those who argue in favour of sharing sovereign tasks. This is the principle of subsidiarity (presented in Chapter 3) and it is enshrined in the European Treaty:

In areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and insofar as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community.

(Article 5)

In other words: unless there is a strong case of externality or increasing returns to scale, the presumption is that decisions remain at the national (or lower) level.

17.3.3 Implications for fiscal policy

A key distinction: microeconomic vs. macroeconomic aspects of fiscal policy

It is helpful to separate two aspects of fiscal policy. The first aspect is structural, that is, mainly microeconomic. It concerns the size of the budget, where public money is spent, and how taxes are raised, that is, who pays what. It also concerns income redistribution and the need to reduce inequalities or to provide incentives to particular individuals or groups. The second aspect is macroeconomic. This is the income stabilization role of fiscal policy, the idea that it can be used as a counter-cyclical instrument.

Here, we focus on the macroeconomic stabilization component of fiscal policy, ignoring the structural aspects, which clearly are a matter for national politics, with very limited macroeconomic impact. To simplify, we look at the budget balance and ignore the size and structure of the budget and the resulting evolution of the public debt. We apply the principles of fiscal federalism to ask whether there is a case for limiting the free exercise of sovereignty on national budget balances and debts.

The case for collective restraint

Section 17.2 identifies a number of spillovers: income flows, borrowing costs and the risk of difficulties in financing runaway deficits, possibly leading to debt default. Some of these spillovers can have serious effects across the Eurozone, as the crisis has shown. In addition, some countries have not established political institutions that are conducive to fiscal discipline so it may be in their own best interest to use Brussels as an external agent of restraint. On the other hand, it is difficult to detect any scale economy in these matters.

These externalities call for some limits on national fiscal policies, and such limits can take various forms, ranging from coordination and peer pressure to mandatory limits on deficits and debts.

The case against collective restraint

Working in the opposite direction are important heterogeneities and information asymmetries. Macroeconomic heterogeneity occurs in the presence of asymmetric shocks. A common fiscal policy, on top of a common monetary policy, would leave each country with no counter-cyclical macroeconomic tool. Heterogeneity can also be the consequence of differences of opinion regarding the effectiveness of the instrument. Some countries (e.g. France and Italy) have long been active users of fiscal policy whereas others (e.g. Germany) have a tradition of scepticism towards Keynesian policies. Finally, national political processes are another source of heterogeneity. In some countries, the government has quite some leeway to adapt the budget to changing economic conditions, whereas in others the process is cumbersome and politically contentious.

Information asymmetries chiefly concern the perception of the political implications of fiscal policies. Each government faces elections, and economic issues often weigh heavily in shaping voter preferences. Whether and how to use fiscal policy at a particular juncture is part of a complex political game, which makes national politics highly idiosyncratic. While politicians clearly understand one another's electoral plight, they have a hard time absorbing the many fine details of foreign national politics.

Finally, a number of countries have built institutions that effectively contain the deficit bias. Table 17.1 shows that this is the case in the Nordic countries as well as in some central and eastern European countries. These arrangements include national budget rules, oversight committees (wise-persons) or limits to parliamentary initiatives that tend to raise spending or cut taxes. If it is possible to achieve fiscal discipline locally, then the subsidiarity principle indicates that this is where measures have to be taken in the first place.

Overall

It is far from clear that the macroeconomic component of fiscal policy should be subject to common limits. Quite clearly, a single common fiscal policy is ruled out, but what about some degree of cooperation? The debate is ongoing and is unlikely to be settled in the near future. The subsidiarity principle implies that, as long as the case is not strong, fiscal policy should remain fully a national prerogative. On the other hand, the spillovers that could result from *excessive* deficits are important; this is the logical basis for the Stability and Growth Pact.

17.3.4 What does it all mean for fiscal policy in the Eurozone?

In true federal states, there is a powerful federal government and sub-federal governments are usually restrained in their ability to run deficits and hence to use fiscal policy as a macroeconomic instrument. In the Eurozone, in contrast, the Commission budget is far too small (1 per cent of GDP) to play any macroeconomic role. This is why a number of proposals aim at establishing an 'economic government for Europe', including a European Finance Minister. The idea is that decentralized fiscal policies would be subject to overall coherence objectives. There is a strong logic to it, but how does it relate to sovereignty in fiscal matters?

Applying the principles of fiscal federalism to the Eurozone leaves us with few uncontroversial conclusions. There always were valid reasons for imposing fiscal discipline, and the debt crisis has made it clear that it is a survival condition for the euro. The case for policy coordination is also convincing but there are equally valid arguments in the opposite direction. All in all, the case for further transfer of sovereignty is weak.

Start with fiscal discipline. Since one country's lack of fiscal discipline may create havoc throughout the Eurozone, as has happened, a natural reaction is to limit the sovereignty of member countries, at least during periods of instability. At the same time, parliamentary control over budgetary matters is a very fundamental principle of democracies ('no taxation without representation'). Challenging this principle can be justified only if there is no other way of imposing fiscal discipline through member countries. But, as noted above and further explained in Box 17.2, a number of countries have managed to contain their own deficit biases by reforming their budgetary processes. This indicates that national solutions can deliver fiscal discipline.

Box 17.2 The deficit bias and the common pool effect

The deficit bias is a frequently observed feature of otherwise well-functioning democracies. Is there a systematic reason for this tendency? The common pool effect provides a convincing interpretation. Its name refers to a medieval practice: villages often included a field – the commons – where peasants could freely bring their cows and sheep to pasture. Each peasant had an incentive to bring as many animals as possible since grass was free. The (possibly inaccurate) result was that the commons could not feed all the animals that were grazing. Collectively, the peasants should have agreed to limit the number of animals that anyone could bring, but individually each peasant wanted the others to take the first step. Herds were decimated and the peasants starved.

Much the same applies to taxation: let the others pay more! It also applies to government spending: I want more public spending that is a benefit to me, so cut spending elsewhere if need be. In a democracy, voters require governments to do things for them and to pay for them with taxes paid by others. They often organize themselves in powerful pressure groups that lobby the government. In that way,

many specific expenditures become political sacred cows. Since tax increases are politically unsavoury, budget deficits emerge as a natural outcome.

Once the source of the problem is identified, a solution can be envisioned. The common pool effect suggests that the budget process must be straightened out. Some countries legally limit the size of deficits; others require the government to decide on the deficit first, and only then to decide on spending and taxes; and yet others request a high degree of transparency, which undermines the influence of lobbies.

Table 17.2 documents the track record among a number of developed countries. For each country, it provides two pieces of evidence: in the first row, the proportion of years when the budget was in deficit over more than half a century and, in the second row, which year the budget was last in surplus, if that occurred after 1960. The deficit bias is widely confirmed as most countries have experienced deficits for at least four years out of five. The exceptions are Norway (which benefits from huge oil and gas income), Denmark, Finland, New Zealand and Sweden, countries that display a high degree of both transparency and collective responsibility. It is also interesting to note that some countries have recently adopted some of the anti-bias solutions mentioned above; while their track record is poor, it is improving, as indicated by recent surpluses.

Table 17.2 Deficit years during 1960–2014 in the OECD area (%)

	Australia	Austria	Belgium	Canada	Denmark
%	81	83	96	74	51
Last surplus	2008	1974	2006	2007	2008
	Finland	France	Germany	Greece	Ireland
%	25	91	77	81	81
Last surplus	2008	1974	2012	1972	2007
	Italy	Japan	Netherlands	Norway	New Zealand
%	100	70	89	4	48
Last surplus		1992	2008	2014	2008
	Portugal	Spain	Sweden	UK	USA
%	100	79	42	85	92
Last surplus		2007	2008	2001	2000

Sources: *Economic Outlook*, OECD and Eichengreen and Wyplosz (1993) for older data.

There is no doubt that policy coordination is desirable, but it is also very difficult to implement. Ideally, all governments would discuss their macroeconomic needs and the Eurosystem would indicate its contribution to overall inflation and output stabilization. The governments would then agree on what each one would do, both to deal with domestic conditions and to achieve the collective best. This is a tall order. First, because assessing each country's needs and identifying the collective best is largely beyond current knowledge. Second, because in each country the politics of fiscal policy are often conflictual. The outcome of the budgetary process can be unpredictable until the parliament has finished voting. Finally, governments are likely to be highly reluctant to relinquish such an important political tool.

A step was taken in 2011 with the adoption of a 'European semester'. The arrangement is described below. One objective is to synchronize budgetary planning in the EU, opening the door to cooperation. Another objective is to move ahead of national budgetary processes in the hope of framing them in accordance with the obligations of the Stability and Growth Pact. The European semester triggers discussions

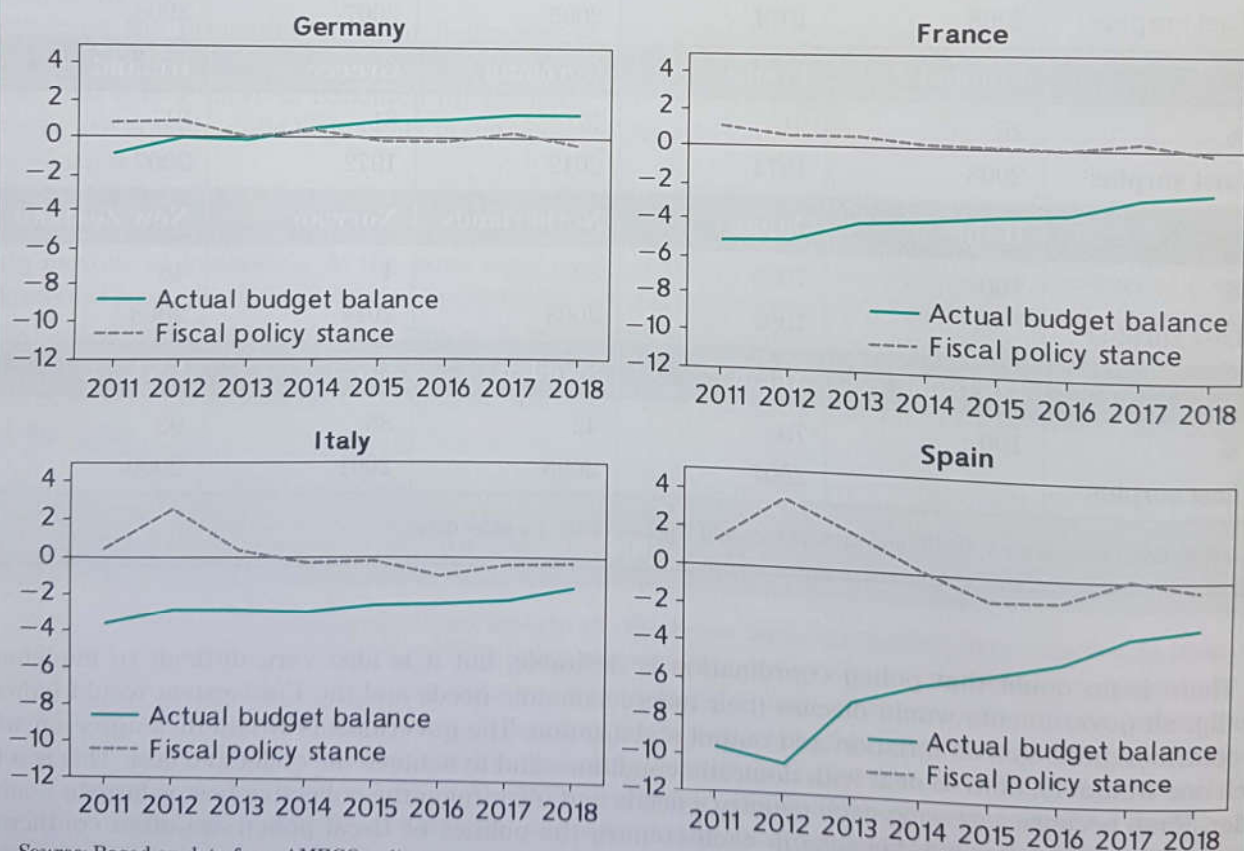
among governments and in the European Parliament, and leads to jointly agreed recommendations by the Council.⁸ Time will tell whether the European semester succeeds in injecting some degree of coordination effective enough to take into account the spillovers described in Section 17.2. Since this new coordination mechanism does not limit national sovereignty in any way, it is hard to imagine that much will be gained. Box 17.3 provides an example of the difficulties.

Box 17.3 Fiscal policy coordination in the Eurozone

Following the crisis of 2010 and subsequent years, recovery has been unusually slow, as can be seen in Figure 17.3. A large number of countries, not merely the crisis countries, were asked again to cut their budget deficits because the public debt had increased during the recession that followed the global financial crisis. Restrictive fiscal policies stunted the recovery. Policy coordination could have improved things by encouraging deficit reduction where needed while promoting a stronger recovery through spillovers from expansionary fiscal policies where the debt allowed. Since large countries produce stronger spillovers, it mattered a lot what they were doing.

Figure 17.5 looks at the situation in the four largest countries. Each chart displays the actual budget balance and the change in the cyclically adjusted primary balance, which is a measure of the fiscal stance. An increase in the cyclically adjusted primary balance denotes a discretionary tightening of

Figure 17.5 The budget balance and the fiscal stance 2011–2018 (% of GDP)



Source: Based on data from AMECO online.

⁸ 'The Council' here refers to the Ministers for Economic and Financial Affairs and is called ECOFIN. For Eurozone decisions, ECOFIN includes only Ministers from member countries, casually referred to as the Eurogroup. The Eurogroup usually meets on the day before ECOFIN meetings.

fiscal policy, which is contractionary. A decrease indicates an expansionary stance. The figure shows that the budget was in deficit in France, Italy and Spain, while it went from a small deficit to a small surplus in Germany. This suggests that there was no fiscal space – no room for expansionary policies – during the recession years 2011–2013 in France, Italy and Spain.

Under these conditions, coordination would have combined a fiscal policy expansion in Germany with deficit reduction – a contractionary fiscal policy stance – in the other countries. Yet, it did not happen. In Germany, fiscal policy was essentially neutral while deficit reduction was muted in the other three large countries. The European semester is designed to promote coordination. At the conclusion of the 2014 exercise, the July European Council stated that '[it] is of the opinion that public finances in Germany remain sound overall as the medium-term objective is forecast to continue to be maintained and the debt rule respected'. In other words, there is no suggestion that Germany should change its fiscal policy stance. At about the same time, when it concluded its annual review of German policies, the IMF considered that 'policies should focus on increasing growth in Germany while at the same time supporting the recovery in the euro area'.¹

¹ The European council statement is available at: <http://register.consilium.europa.eu/pdf/en/14/st10/st10783.en14.pdf>. The IMF statement can be found at <http://www.imf.org/external/np/ms/2014/051914.htm>.

Ultimately, the debate has been ongoing for a decade and is unlikely to disappear.⁹ It pits those who attach much importance to spillovers and think that macroeconomic coordination is both promising and relatively easy to implement against those who see it as a collusion of self-interested governments.

17.4 The Stability and Growth Pact

17.4.1 From convergence to the quest for a permanent regime

As explained in Chapter 16, admission to the monetary union requires a budget deficit of less than 3 per cent of GDP and a public debt of less than 60 per cent of GDP, or declining towards this benchmark. But what about afterwards, once in the monetary union? Could countries achieve the two fiscal criteria, join the monetary union and then freely relapse into unbridled indiscipline? Doing so would be against the spirit of convergence. The founding fathers of the Maastricht Treaty were keenly aware of this risk and, indeed, Article 126 unambiguously states that 'Member States shall avoid excessive government deficits' and then goes on to outline an 'excessive deficit procedure'. The Treaty left the practical details of the procedure to be settled later – and this is the task fulfilled by the Stability and Growth Pact (SGP) and its excessive deficit procedure (EDP).¹⁰

Adopted in 1997, the EDP was meant to be strictly enforced. However, because fiscal policy remains a national competence, the final say was given to the Council of Finance Ministers of the Eurozone, the Eurogroup. Acting on proposals from the Commission, which assumed the responsibility of being the Pact's 'tough cop', the Eurogroup has been loath to make decisions that would strongly antagonize its members, especially the finance ministers from the large countries. In November 2003, France and Germany were about to be sanctioned for excessive deficits. Under pressure from the French and German finance ministers, the Eurogroup recanted and placed the SGP 'in abeyance'. This incident is recounted in Box 17.5. This episode showed that the SGP was not well designed. Considering that it was too rigid to be enforceable, governments and the Commission prepared a reformulation of the Pact.

⁹ Some references are provided in the further reading section at the end of this chapter.

¹⁰ The initiative was taken by Germany in 1995 and the Pact adopted in June 1997 by the European Council. Informed by its own inter-war history, Germany was always concerned that fiscal indiscipline could lead to inflation. This is why it insisted on a clear and automatic procedure. It wanted to make full use of the provisions of the Maastricht Treaty, which allowed for fines in the case of excessive deficits. The other countries were less enthusiastic but Germany was holding the key to the Eurozone. France, in particular, was unhappy with the German proposal. It obtained the symbolic addition of the word 'growth' to what Germany had initially called the Stability Pact.

The new version was adopted in June 2005. It sought to combine flexibility with a more precise rule of the game. The two main changes were as follows (and are explained in detail below).

- 1 Because the actual deficit is a poor gauge of policy actions, as explained in Section 17.1, attention would shift to the cyclically adjusted primary budget. Formally, the actual budget and the 3 per cent deficit limit would remain the criterion because it is stipulated in the EDP enshrined in the Maastricht Treaty, but the Commission was given some room to interpret the situation.
- 2 A 'preventive arm' was introduced to allow the Commission to make recommendations in a good year, when the budget mechanically improves due to the automatic stabilizers but enough to keep the budget from dipping below the 3 per cent deficit limit.

Then came the global financial crisis. Obviously, this was not the time to insist on a strict application of the SGP and nearly all countries were technically in excessive debt. The Commission issued a European Economic Recovery Programme, which implicitly accepted that it would take time to respect the SGP. At the same time, the Commission proposed to strengthen and expand the SGP, acknowledging that it had not delivered its promises even before the crisis. This time, the focus was on embedding the pact in national policy-making processes and to foster coordination.

This has led to yet another re-engineering of the SGP. Two new agreements, the so-called Six Pack–Two Pack, and one new Treaty, the Treaty on Stability, Coordination and Governance (TSCG, also called the Fiscal Compact) are described below. It was also decided to strengthen the hand of the Commission, which can only make recommendations to the European Council, which had shown much leniency. According to the Reverse Qualified Majority Voting procedure, a Commission proposal to apply sanctions for excessive deficits is approved unless a qualified majority of Member States oppose it.

17.4.2 The stability and growth pact

The SGP consists of five elements:

- 1 A definition of what constitutes an 'excessive deficit'
- 2 A preventive arm, designed to encourage governments to avoid excessive deficits
- 3 A corrective arm, which prescribes how governments should react to a breach of the deficit limit
- 4 Procedures designed to embed each country's budget process within a European framework that is meant to be overriding
- 5 Sanctions.

The SGP applies to all EU member countries but only the Eurozone countries are subject to the corrective arm.

Excessive deficits and debts

The Stability and Growth Pact considers that deficits are excessive when they are above 3 per cent of GDP. The public debt is excessive when it exceeds 60 per cent of GDP. These are the two convergence criteria described in Chapter 16, which also explains the logical connection between these values (Box 16.2).

The weakness of the deficit threshold is the existence of automatic stabilizers (see Section 17.1.3). When an adverse asymmetric shock occurs, the limit can be breached. At the same time, an adverse shock is just when a fiscal policy expansion is desirable. This is why the SGP also takes into account the structural budget balance, defined as the cyclically adjusted balance net of exceptional spending or revenues. The SGP requires that the structural budget always be 'in balance' or surplus, meaning that the deficit does not exceed 0.5 per cent of GDP.

The preventive arm

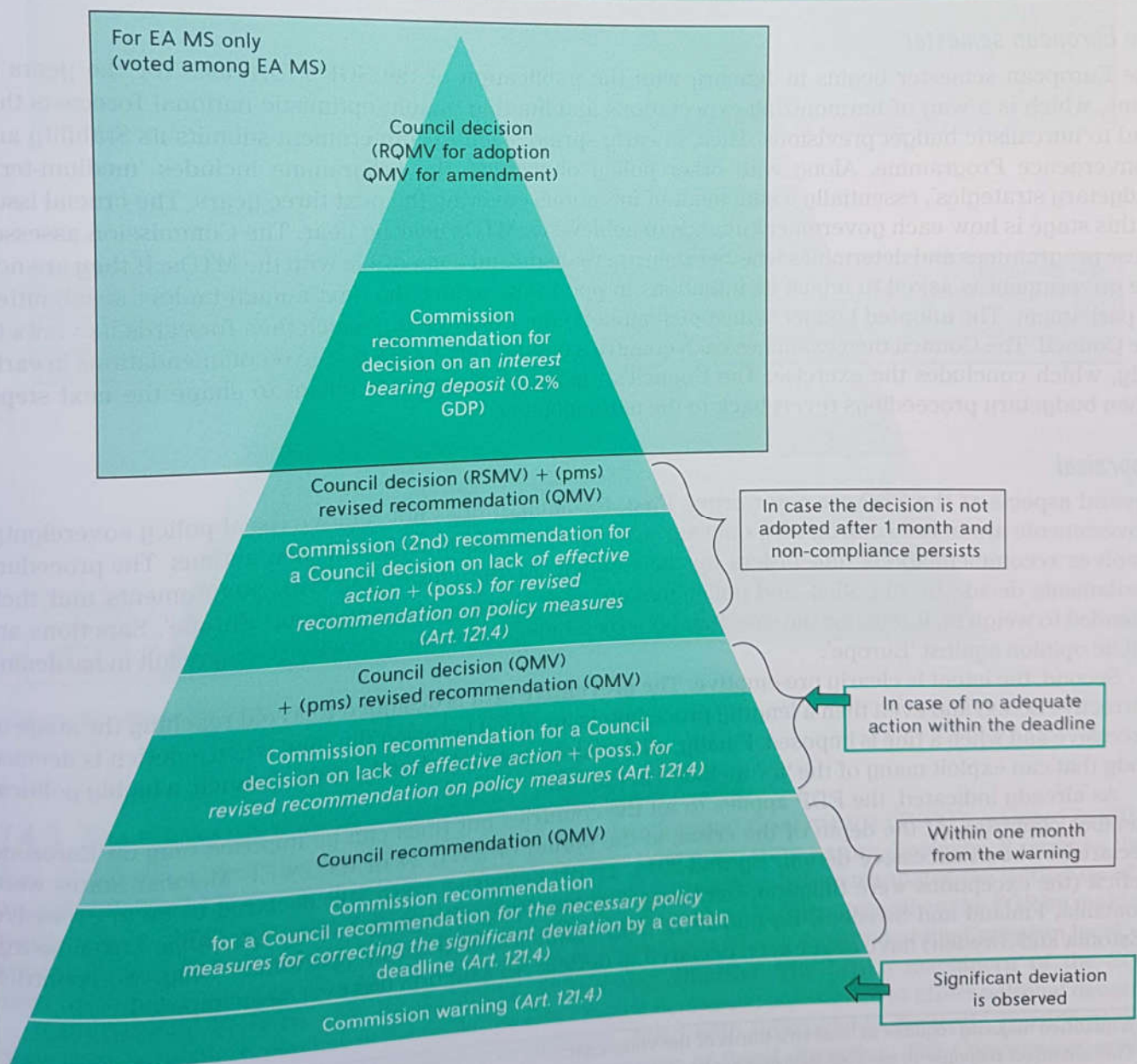
As explained in Section 17.2.4, many governments exhibit a deficit bias because of domestic pressure and political expediency. The idea here is that the SGP can exert some counter-pressure in the form of peer pressure, called mutual surveillance. The preventive arm is designed to submit finance ministers to a

collective discussion of one another's fiscal policy in the hope that doing so will help constrain the deficit bias and support budgetary discipline. The preventive arm is also meant to circumvent using the politically sensitive corrective arm.

To that effect, each country must specify its Medium Term Objective (MTO), the budget balance that it commits to achieving within a three-year period. The MTO must be compatible with 'minimum benchmarks' (budget balance, debt, growth). They are updated every three years.

What happens if a country adopts a budget that is not in conformity with the requirements put forward by the Council? This triggers a procedure summarized in Figure 17.6: warnings and recommendations follow in quick succession. The ultimate sanction is a fine of 0.2 per cent of the country's GDP, which takes the form of an interest-bearing deposit; these resources are frozen until the procedure is lifted. Importantly, the decision is adopted by the Council, following a recommendation by the Commission, through a procedure called reversed qualified majority voting (RQMV). This means that the Commission's proposal is

Figure 17.6 The preventive arm



Source: European Commission.

adopted unless a majority of votes, weighted by country size, decides against it.¹¹ The intention is to make Commission proposals more likely to be adopted.¹² The preventive arm applies to all EU countries but fines can be imposed only on Eurozone member countries.

The corrective arm

When a country does not meet the requirements of the SGP – the 3 per cent deficit and 60 per cent debt limits – it is declared in excessive deficit by the Council. The decision is made through qualified majority voting (QMV) upon a recommendation from the Commission. Given that most Eurozone countries have debts vastly in excess of 60 per cent, the EDP applies only if a country above the threshold has not reduced its debt by at least 0.5 per cent of GDP on average over the previous three years.

The Council applies gradually increasing peer pressure, described in Figure 17.7. In brief, the Council adopts recommendations that are increasingly detailed and urgent when the recommended course of action is not followed. After several failures to comply, a sanction procedure is triggered. Following a next-to-final warning adopted by RQMV, the Council imposes a sanction by QMV. The sanction is a deposit worth 0.2 per cent of the delinquent country's GDP. Further non-compliance may result in additional fines up to a maximum of 0.5 per cent of GDP.

The European semester

The European semester begins in January with the publication of the SGP's forecasts for the years to come, which is a way of harmonizing expectations and limiting unduly optimistic national forecasts that lead to unrealistic budget provisions. Then, in early spring, each EU government submits its Stability and Convergence Programme. Along with other policy objectives, the programme includes 'medium-term budgetary strategies', essentially a statement of intentions covering the next three years. The crucial issue at this stage is how each government intends to achieve its MTOs year by year. The Commission assesses these programmes and determines whether they are realistic and compatible with the MTOs. If they are not, the government is asked to adjust its intentions in good time before the next annual budget is submitted to parliament. The adopted budget is then evaluated by the Commission, which then forwards its views to the Council. The Council then examines each country's budget and makes public recommendations in early July, which concludes the exercise. The Council's recommendations are meant to shape the next steps, when budgetary proceedings revert back to the national level.

Appraisal

Several aspects of the EDP are noteworthy. First, formally, it does not remove fiscal policy sovereignty. Governments are in full control; they only agree to bear the consequences of their actions. The procedure involves recommendations, not orders by the Council. At the end of the day, governments and their parliaments decide fiscal policy, and policy-makers care about voters not about 'Europe'. Sanctions are intended to weigh in. It remains the case that both recommendations and sanctions may result in hardening public opinion against 'Europe'.

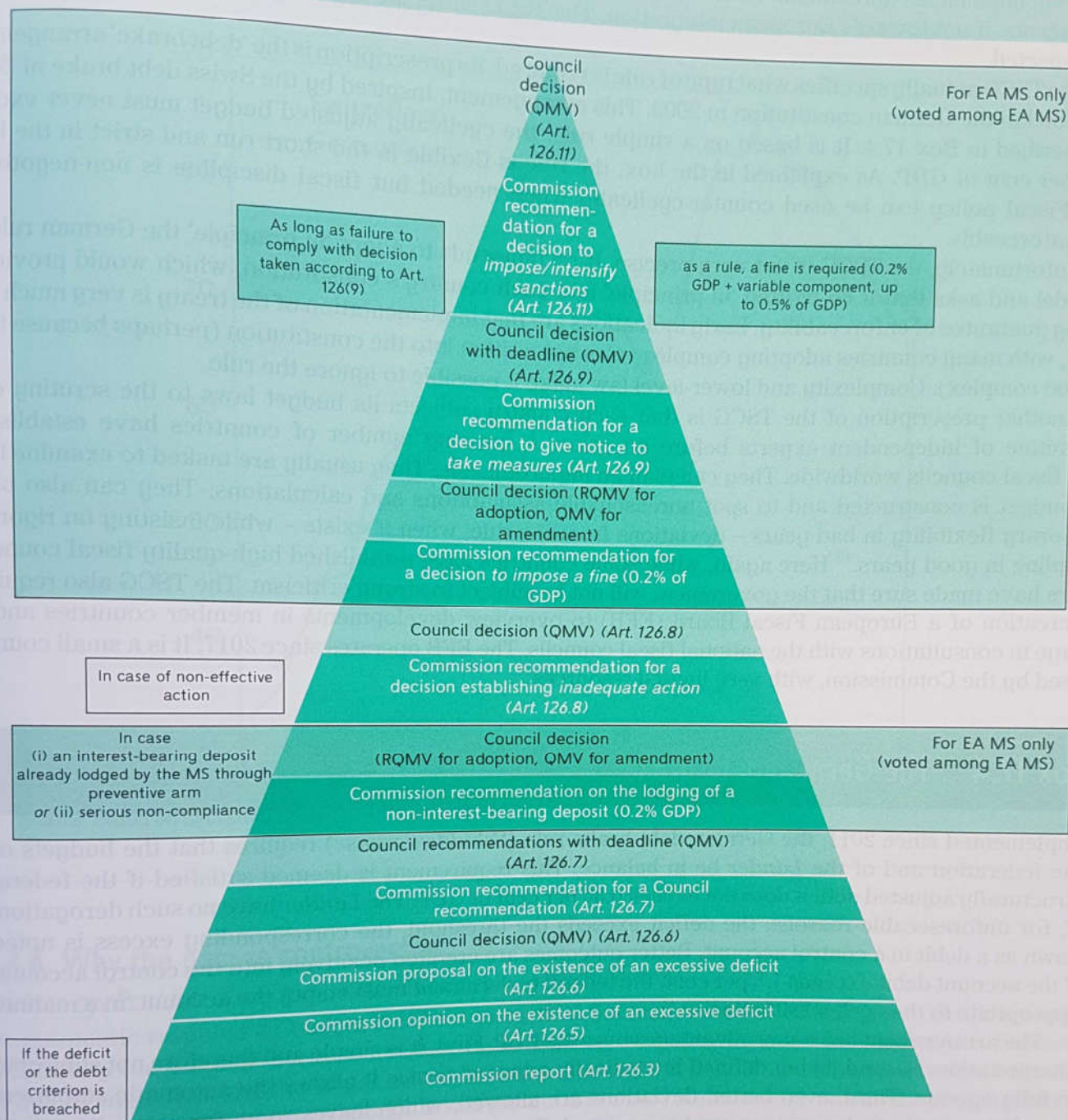
Second, the intent is clearly pre-emptive. The preventive arm is designed to avoid reaching the stage of corrective action and even then a lengthy procedure is involved between the time when a deficit is deemed excessive and when a fine is imposed. Finally, all decisions are in the hands of the Council, a highly political body that can exploit many of the 'ifs' included in the SGP.

As already indicated, the EDP applies to all EU countries but fines can be imposed only on Eurozone member countries. At the depth of the crisis, in the spring of 2011, 24 of the 28 EU Member States were declared to be in excessive deficit. By mid-2014, 17 EU countries were still declared to be in excessive deficit (the exceptions were Bulgaria, Germany, Estonia, Italy, Hungary, Latvia, Lithuania, Luxembourg, Romania, Finland and Sweden). By mid-2018, only Spain was still in the procedure. Only two countries (Estonia and Sweden) have never been declared in deficit. No sanction has ever been imposed.

¹¹ A qualified majority requires at least two-thirds of the votes cast.

¹² This is a direct response to the 2003 decision not to sanction France and Germany. The two largest countries mustered enough votes to fail to approve the Commission's proposal.

Figure 17.7 The corrective arm



Source: European Commission.

17.4.3 The treaty on stability, coordination and governance

Most of the elements of the Treaty on Stability, Coordination and Governance (TSCG), adopted in 2012, are included in the SGP. There is one novel element that is of a different nature, however. It requires that every country adopt a budget rule enshrined in high-level legislation. It also mandates the setting up of a watchdog council composed of independent experts. The intent is to further strengthen the SGP by making fiscal discipline a national obligation, not just a requirement set and implemented at the European level.

Inadvertently, perhaps, this treaty (along with the heavy machinery of the SGP and Council decisions) is designed to affect national debates about fiscal policy. Yet national debates are national, filled with unavoidable domestic considerations about fiscal policy. Yet national debates are national, filled with unavoidable domestic considerations about fiscal policy. The Commission easily often far removed from taking into account the importance of fiscal discipline. The Commission's response, that emerges as the villain that encroaches on an area of national sovereignty.

it merely implements agreements voluntarily adopted by member countries, often elicits hostility to these agreements, if not towards European integration. The TSCG shifts the debate: it is national laws that must be respected.

The TSCG actually specifies what type of rule is required. Its prescription is the 'debt brake' arrangement inscribed in the German constitution in 2009. This arrangement, inspired by the Swiss debt brake of 2001, is described in Box 17.4. It is based on a simple rule: the cyclically adjusted budget must never exceed 0.35 per cent of GDP. As explained in the box, the rule is flexible in the short run and strict in the long run. Fiscal policy can be used counter-cyclically when needed but fiscal discipline is non-negotiable and enforceable.

Unfortunately, the TSCG is not very precise. It recommends to adopt 'in principle' the German rule as a model and asks that it be written 'in principle' into each country's constitution, which would provide a strong guarantee of enforceability. Early indications are that implementation of the treaty is very much *à la carte*, with many countries adopting complex rules not written into the constitution (perhaps because they are too complex). Complexity and lower-level law make it possible to ignore the rule.

Another prescription of the TSCG is that each country subjects its budget laws to the scrutiny of a committee of independent experts before adoption. A growing number of countries have established such fiscal councils worldwide. They can play an important role. They usually are tasked to examine how the budget is constructed and to spot unreasonable assumptions and calculations. They can also bless temporary flexibility in bad years – deviations from the rule, when it exists – while insisting on rigorous discipline in good years.¹³ Here again, while some countries have established high-quality fiscal councils, others have made sure that the government will not be subject to strong criticism. The TSCG also required the creation of a European Fiscal Board (EFB) to overview developments in member countries and to engage in consultations with the national fiscal councils. The EFB operates since 2017. It is a small council, housed by the Commission, with very limited resources.

Box 17.4 The German debt brake

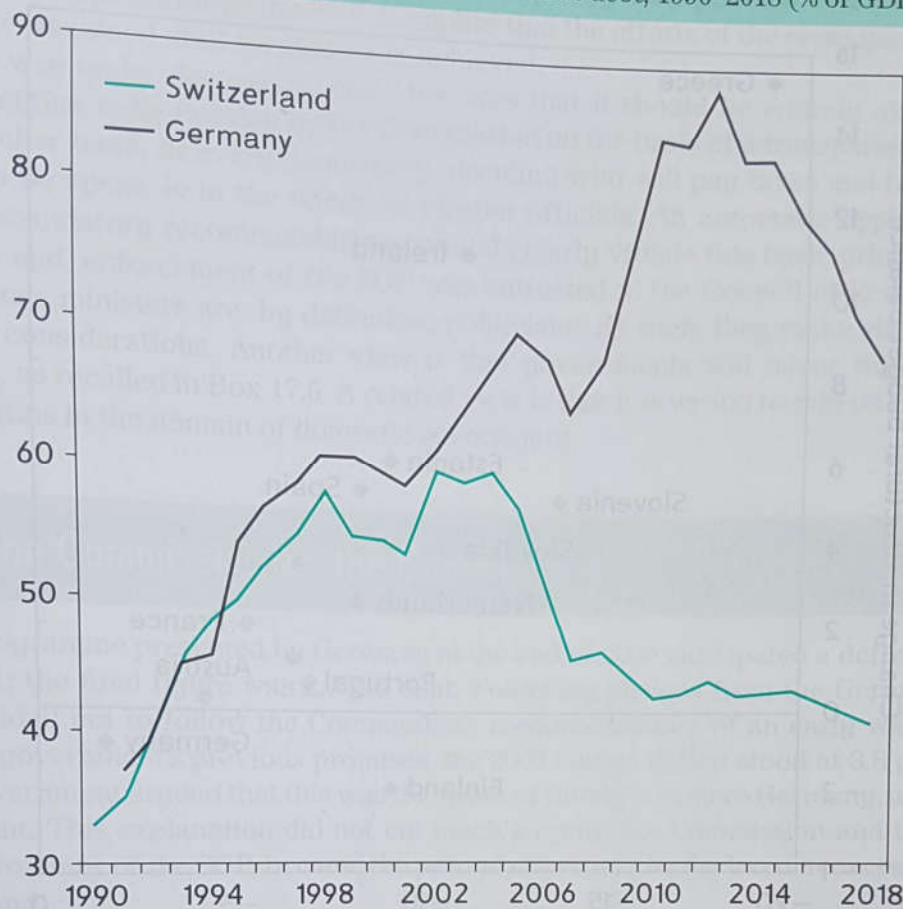
Implemented since 2011, the German debt brake rule (*Schuldenbremse*) requires that the budgets of the federation and of the *Länder* be in balance. This requirement is deemed satisfied if the federal structurally adjusted deficit does not exceed 0.35 per cent of GDP. The *Länder* have no such derogation. If, for unforeseeable reasons, the deficit exceeds the threshold, the corresponding excess is noted down as a debit in a control account. Better outcomes are credited positively into the control account. If the account debit exceeds 1.5 per cent, the federal government must empty the account 'in a manner appropriate to the cyclical situation'.

The arrangement has many advantages over the EDP. First, it is simple and therefore not subject to interpretation. Second, being defined in cyclically adjusted terms, it allows the automatic stabilizers to fully operate. Third, even better, deviations are allowed, which leaves room for some discretion; later, however, these deviations must be corrected. Fourth, again in contrast to the SGP, the correction does not have to be executed immediately, only 'in a manner appropriate to the cyclical situation', which leaves space in which to wait for better times. Importantly, the obligation to correct accumulated lapses implies that bygones are not bygones; the government knows ex-ante that it will have to compensate any slippage through subsequent surpluses. Finally, the rule is a constitutional requirement. The all-powerful Constitutional Court of Karlsruhe will see to it that the rule is respected.

The debt brake is being progressively applied, so it is too early to observe its full effect. The Swiss debt brake, which served as a model for Germany, has been in place since 2002. Figure 17.8 presents the evolution of the German and Swiss federal government debts. Obviously, fiscal discipline did not exist in Germany and Switzerland before the adoption of the debt brake rules. However, the impact of a simple and clever rule has led to a clear break from the past.

¹³ During the crisis, the Swedish committee asked for a more expansionary fiscal policy than planned by the government. The government dutifully obliged.

Figure 17.8 Germany and Switzerland: federal government debt, 1990–2018 (% of GDP)



Source: Based on data from *Economic Outlook*, OECD.

17.4.4 Why the pact is controversial

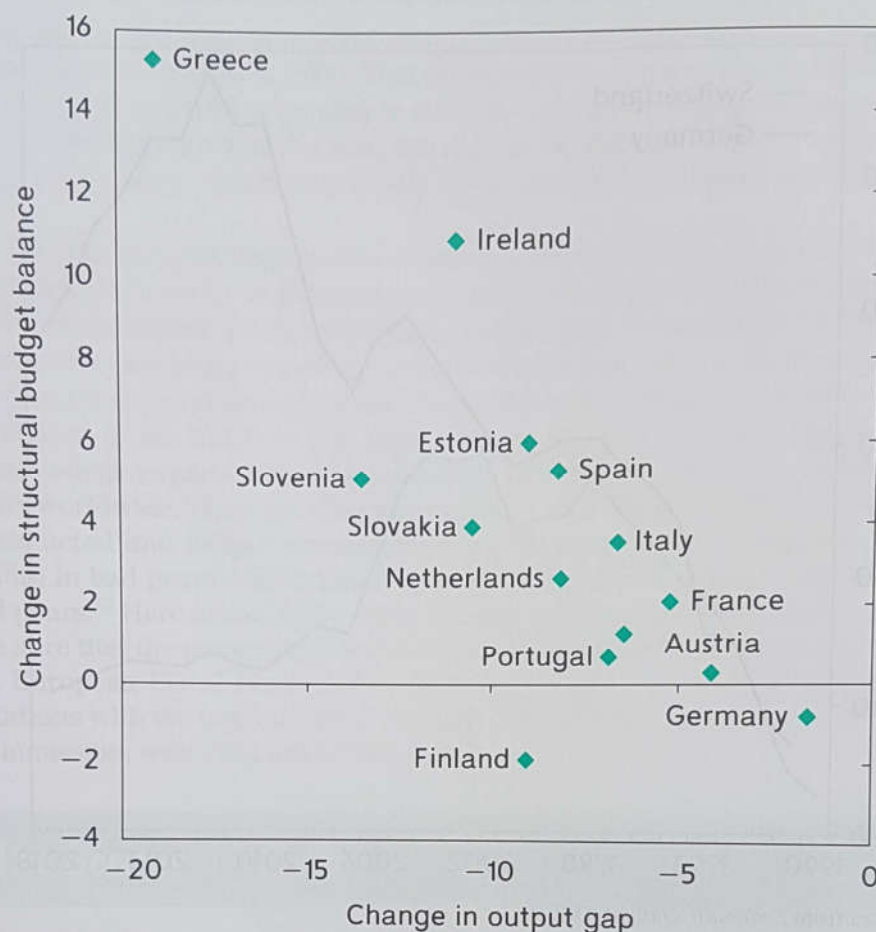
Counter-cyclical fiscal policies: how much room to manoeuvre?

The automatic response of budget balances to cyclical fluctuations, recalled in Section 17.1.3, is a source of difficulty for the EDP because much of its machinery, including the sanction mechanism, focuses on the 3 per cent deficit and the 60 per cent debt limits. The logic is that, in normal years, budgets should be balanced or in surplus to leave enough room for the automatic stabilizers to come into play in bad years without breaching the 3 per cent limit.

Mindful of this problem, the reforms of the SGP have put increasing weight on the structural budget. As it conducts surveillance, the Commission interprets the budgetary situation by recognizing that a budget balance can deteriorate automatically when the economic situation worsens. Indeed, the corrective arm urges governments to aim at surpluses during good years (with a formal definition of what a good year actually is). Still, when a country is declared in excessive deficit, it is not allowed to let the automatic stabilizers play their shock-absorbing role. The same applies to countries with debts in excess of 60 per cent of GDP, which are required to cut indebtedness by 0.5 per cent per year, a requirement that applies to 13 out of 18 Eurozone member countries (as of mid-2014).

The upshot is that many member countries are forced to conduct pro-cyclical fiscal policies in bad times, with a contractionary effect. The result is shown in Figure 17.9, which plots changes in the output gap between 2008 (before the Eurozone crisis) and 2014 on the horizontal axis, and in the cyclically adjusted budget balance (net of debt service) on the vertical axis. If fiscal policies are counter-cyclical, a decline in the output gap should be associated with a worsened structural balance as fiscal policy becomes expansionary. Figure 17.9 shows that output gaps have worsened everywhere in the Eurozone after the

Figure 17.9 Pro-cyclical fiscal policies during the crisis, 2008–14



Note: Vertical axis: change in the ratio of output gap to GDP (%); horizontal axis: change in the ratio of cyclically adjusted balance to GDP (%).

Source: Based on data from *Economic Outlook*, OECD.

crisis and that the structural balances have increased everywhere except Finland and Germany. In fact, the worse has been the decline in output gap, the more the structural budget has improved: the countries that adopted the more contractionary fiscal policies are those where the recession has been deeper. This suggests a two-way causality: the recession has subjected all countries to the excessive deficit procedure and the SGP has promoted contractionary fiscal policies. These policies, in turn, have led to deeper falls in output gap.

Controversies

The Stability and Growth Pact is the arrangement adopted to establish much-needed fiscal discipline in the EU in general, and especially in the Eurozone. Its logic is to provide a strong incentive for each government to bring its budget into balance, or even surplus in good years, so that fiscal policy can be used as a counter-cyclical instrument in bad years. This is a good principle, for all countries anywhere in the world. Yet, the SGP has become intensely controversial, and not simply because of the crisis.

A first hurdle is the starting position. Had all countries achieved budget surpluses before adopting the euro, it would have been much easier to operate the SGP as intended. The convergence criteria, however, required only a deficit of less than 3 per cent and, as Figure 16.2 shows, many did marginally better. The early years of the euro were mostly good years, sometimes even very good years, but 'Maastricht fatigue' – efforts to meet the criteria – set in and few countries took advantage of the economic situation to carry out the required clean-up. This eventually led to the adoption of the preventive arm, but the crisis occurred

before the budgets had been suitably improved. The impact of the SGP during the crisis, following a serious tightening of the rules in 2011–12, led to the adoption of pro-cyclical policies at the worst possible time. This is the 'bad luck' interpretation of the SGP. It implies that the efforts of the crisis years represent a good start and have to be sustained until surpluses are achieved.

When the SGP was under discussion, one view was that it should be entirely automatic, with each step, including sanctions, to be decided by the Commission on the basis of a transparent and unambiguous roadmap. On the other hand, in every democracy, deciding who will pay taxes and how much, and how public money is to be spent, is in the hands of elected officials. An automatic application of the SGP, including detailed mandatory recommendations, would clearly violate this basic principle of democracy. This is why, in the end, enforcement of the SGP was entrusted to the Council of Economic and Finance Ministers. But finance ministers are, by definition, politicians. As such, they make elaborate calculations involving tactical considerations. Another view is that governments will never want to humiliate one another, as in 2004, as recalled in Box 17.5. A related view is that it is wrong to rely on external pressure in a process that remains in the domain of domestic sovereignty.

Box 17.5 The Commission vs. the Council

The Stability Programme presented by Germany at the end of 2000 anticipated a deficit of 1.5 per cent of GDP for 2001; the final figure was 2.7 per cent. Following pledges from the German government, the Council decided not to follow the Commission's recommendation of an early warning. But then, contrary to the government's previous promises, the 2002 budget deficit stood at 3.8 per cent of GDP. The German government argued that this was the result of floods in eastern Germany, an unforeseeable exceptional event. This explanation did not cut much ice with the Commission and the Council, and Germany, the promoter of the SGP, became the second country to be declared in excessive deficit, two years after Ireland.

For 2001, France had announced a deficit of 1.4 per cent of GDP, but the outcome was 2.7 per cent. In 2002, the deficit reached 3.2 per cent of GDP. By June 2003, a further deterioration was visible, partly because President Chirac reduced income taxes in both years following an election campaign promise. The Council accepted the Commission recommendation to trigger the excessive deficit procedure.

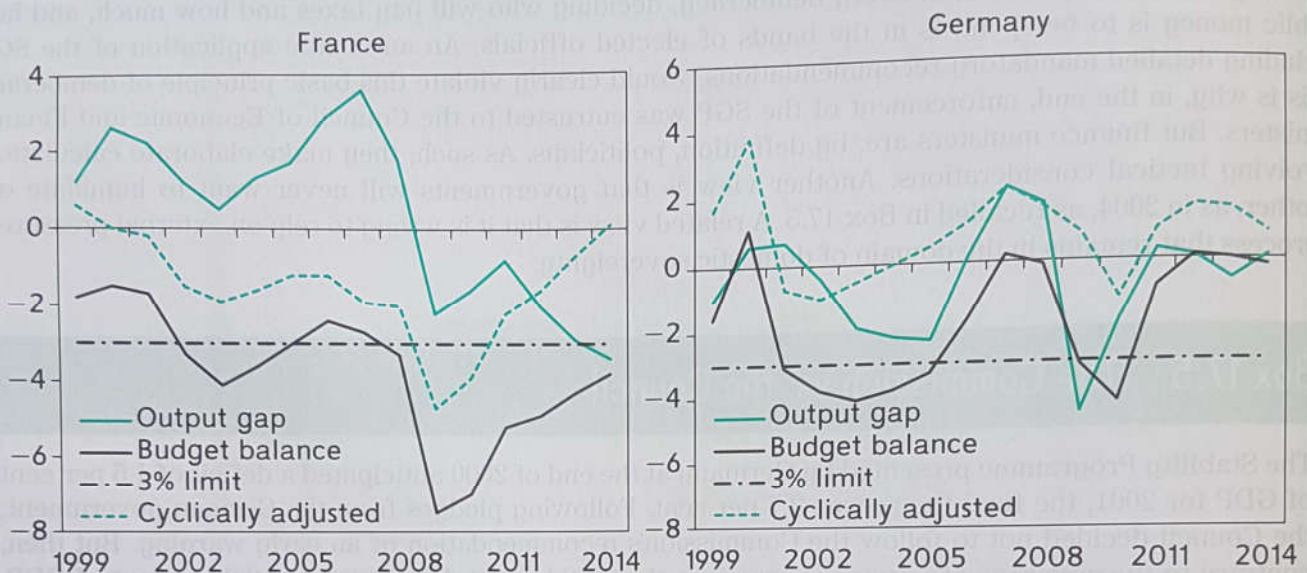
By November 2003, it had become clear that France and Germany were not heeding the recommendations. Their 2003 deficits, not yet known, both transpired to be 3.7 per cent of GDP, and forecasts for 2004 and 2005 did not envision a return to below 3 per cent. This led the Commission to issue mandatory recommendations, the last step before sanctions. After intense lobbying by France and Germany, the Council decided by qualified majority to 'hold the excessive deficit procedure for France and Germany in abeyance for the time being'. An outraged Commission took the Council to the Court of Justice of the European Communities. The Court subsequently annulled this decision, mostly on legal technical grounds. It considered that the wording of the Council decision was not laid out in conformity with the treaty. The Council promptly confirmed the substance of its decision with adequate wording. The Commission claimed victory. By then, however, deficits had declined and the issue was moot.

An amusing episode followed. In 2003, the Dutch deficit stood at 3.2 per cent, the result of a long slowdown. As it was expected to fall below 3 per cent in 2004 and afterwards, no action should have been taken. But the Dutch government, which had led the resistance against the French and German whitewash in November 2003, was keen to restore credibility to the EDP. It asked to be declared in excessive deficit and its request was granted.

The abeyance episode was a lesson well learned. It led to the first major revision of the SGP, in 2005. The lesson drawn then was that the SGP was too strict, leaving the Commission with no choice but to recommend the EDP for France and Germany. Flexibility was achieved by introducing the cyclically adjusted balance as an additional criterion in 2005. Indeed, as Figure 17.10 shows, neither country

breached the 3 per cent limit under this criterion in 2003–04. Afterwards, however, while Germany endeavoured to achieve fiscal discipline, France did not. By the time of the next revision, in 2011, it was concluded that the SGP had been too flexible.

Figure 17.10 France and Germany: output gap and budget balance (% of GDP)



Source: Based on data from *Economic Outlook*, OECD.

Implicit liabilities

Another difficult issue is related to the phenomenon of an ageing population. It is currently expected that the share of people aged 65 years and above will rise to 30 per cent of total population in the Eurozone by 2060, up from 17.2 per cent in 2009. This development will have profound budgetary implications. Spending on health and retirement is expected to increase very significantly. At the same time, the burden of caring for more elderly people will fall on a smaller proportion of the population. The old-age dependency ratio (the number of those aged 65 and over divided by those of working age (15 to 64 years)) will increase from 25.6 per cent in 2009 to 53.5 per cent in 2060.

These expenditures represent entitlements, sometimes called implicit liabilities. They are true liabilities of the governments because they are enshrined in existing welfare programmes. They are implicit because they appear nowhere in existing accounts. They are a source of concern for fiscal discipline because they will eventually increase public expenditures while the corresponding revenues are not provided for. The eventual solution will have to combine a delaying of the age at which people retire, a reduction of pension payments and possibly of health provision, and higher taxes and contributions to the welfare system. Needless to say, each solution is controversial. Some countries have already taken important steps in that direction; others prefer to ignore the issue.

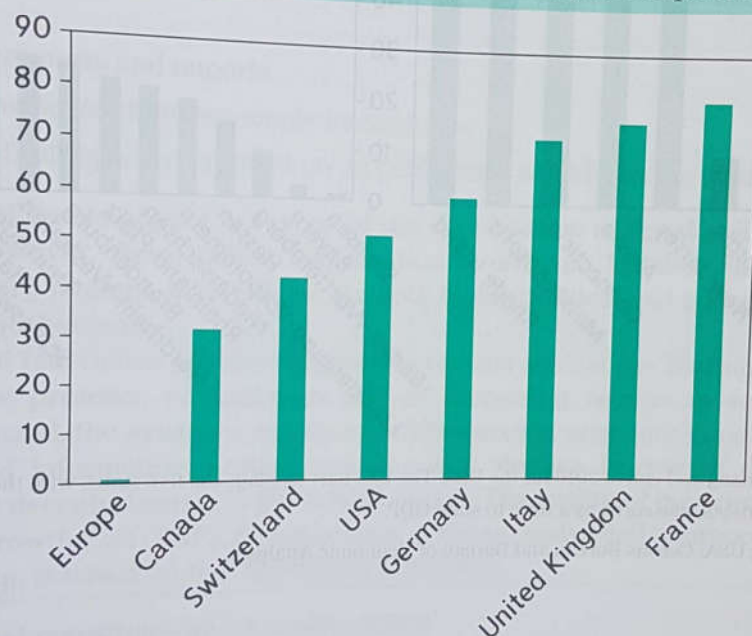
The SGP requires that member governments start planning for the ageing phenomenon. But there is no hard data, merely forecasts focused on decades into the future. As a result, enforcement is impossible and, indeed, the Commission uses this consideration only to colour its diagnosis. Yet, the amounts involved are potentially huge, possibly even dwarfing current debt levels.¹⁴ Why focus the whole pact on existing deficits and debts, then? The answer – because they are measurable – is not particularly convincing.

¹⁴ Some estimates put the implicit liabilities at 100–300 per cent of GDP.

17.4.5 How do they do it elsewhere?

Federal states face the same issues as the European Union and indeed this is why the theory of fiscal federalism has been created. Deep economic integration leads to large spillovers and all potential increasing returns to scale are eagerly exploited. Preferences are more homogeneous than within the Eurozone. This is why the federal government is much larger than the European Commission. Yet, information asymmetries exist, especially in big countries. This is why these countries have adopted a federal system in contrast with unitary states where local and regional governments play a minor role. This explains why expenditures by the central (federal) government represent a smaller proportion of total public expenditures in federal states such as Canada, Germany, Switzerland or USA than in unitary states such as France, Italy and the United Kingdom. In the former the proportion is 50 per cent or less (Figure 17.11). There seems a tendency in federal states for the central budget to grow over time at the expense of sub-central budgets.

Figure 17.11 Share of central government expenditures (% of total public expenditures) in 2016



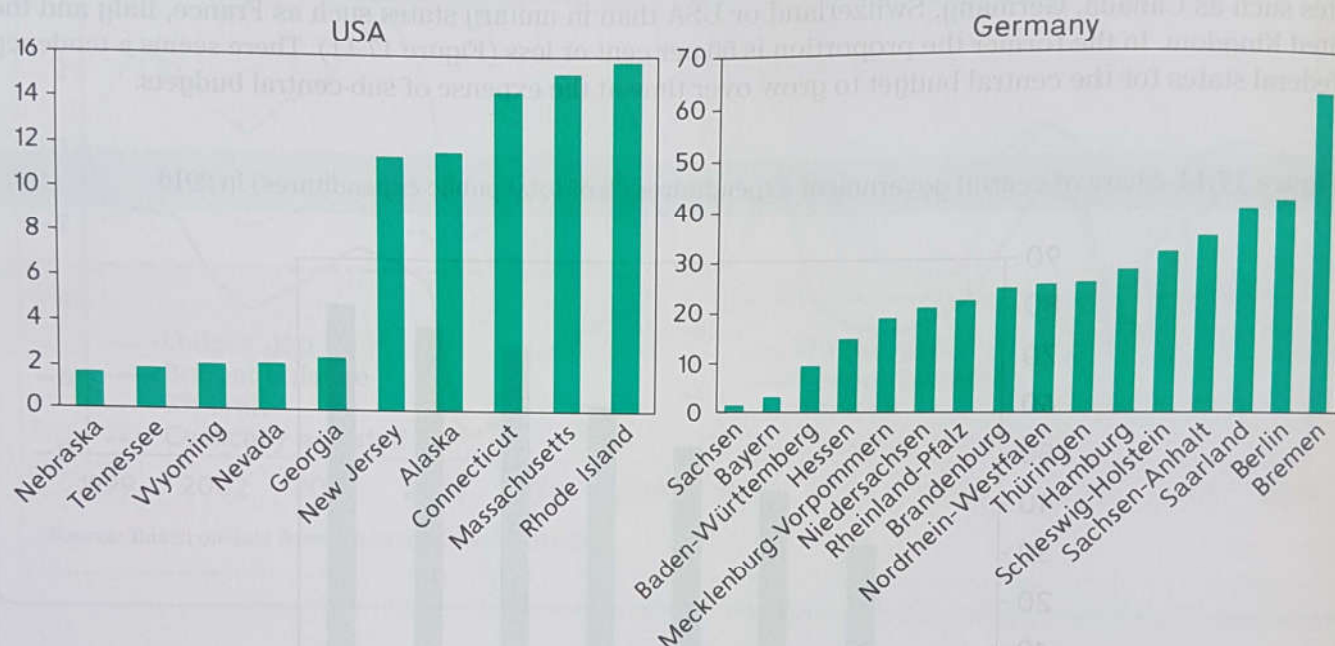
Source: Based on data from Fiscal Decentralisation Database, OECD.

Pretty much like in the Eurozone, the need for fiscal discipline brings up a sensitive trade-off. The ubiquitous deficit bias, and the associated spillovers, call for restraint at both the central and sub-central levels but sub-central levels are also eager to retain sovereignty. It is instructive to look at two cases.

- In Germany, the debt brake applies to the *Länder*, but only as of 2020. The previous system resembles the Stability and Growth Path, not by accident as it served as a blueprint. Under that system, the *Länder* operated under the scrutiny of the Federal government, which could make requests if the previous rule – the so-called Golden Rule that limited deficits to the financing of investment – was not respected. However, the Federal government was, and still is, obligated to bail out states under financial distress. This created contradictory incentives for the *Länder*.
- In the United States, the states are fully sovereign in budgetary matters. After independence, states borrowed far too much but they were bailed out by the federal budget. Then in the 1840s, the Congress decided to forbid bailout. In response, all states – the only exception is Vermont – wrote into their constitutions the obligation of balancing the budget. State governments have explored every possible loophole to circumvent the legal obligation, but the room to manoeuvre has been limited.

Figure 17.12 shows the debt to GDP ratios for the five most indebted and the five less indebted US states, and the same ratios for all 16 German *Länder*. Note that the scales of the vertical axis are very different. It should be clear that the US arrangement delivers much more fiscal discipline than the German arrangement, while fully respecting the budgetary sovereignty of the states. Many other federal countries prohibit any financing of sub-central government debts.

Figure 17.12 Debt levels among German and US states (% of GDP)



Notes: End of 2017 for Germany and end of 2016 for the USA. The US chart displays the five states with the smallest debts and the five states with the largest debts, measured as a ratio to state GDP.

Source: Germany: Destatis; USA: Census Bureau and Bureau of Economic Analysis.

17.5 The macroeconomic imbalance procedure

Figure 16.16 shows that the external balances of Eurozone countries have increasingly diverged since they adopted the euro. In theory, such imbalances should be self-correcting but the Hume mechanism has not worked well. Institutional arrangements and politics have stood in the way of wage and price adjustments is the macroeconomic imbalance procedure (MIP) introduced in 2012 alongside the reform of the excessive deficit procedure.

The formal apparatus of the MIP parallels that of the EDP. It has both a preventive and a corrective arm, and it can lead to sanctions after graduated warnings proposed by the Commission and adopted by the Council by RQMV. The big difference is that the EDP rests on precise and quantified criteria, the deficit and debt ceilings, while the MIP relies on a 'scoreboard', that is, a large number of indicators, including external balances, the evolution of labour costs, unemployment, financial conditions and more. All EU countries are subject to the MIP but only Eurozone countries can be fined.

The heart of the MIP is the Alert Mechanism Report, which is published once a year. It identifies countries that the Commission considers to be in potential difficulty. This triggers an in-depth review, which can lead to recommendations and, ultimately, to possible sanctions of up to 1 per cent of GDP. In 2014, the Commission identified 16 EU countries that required an in-depth review.

17.6 Summary

The loss of national monetary policy leaves fiscal policy as the only macroeconomic instrument for each Eurozone member country. Its importance is reinforced by the absence of intra-Eurozone transfers, one of the OCA criteria not satisfied in Europe.

Fiscal policy operates in two ways:

- 1 The automatic stabilizers come into play without any policy action because deficits increase when the economy slows down, and decline or turn into surpluses when growth is rapid.
- 2 Discretionary policy results from explicit actions taken by the government.

However, undisciplined fiscal policy results in high public indebtedness. Indeed, the well-documented budget deficit bias shows that governments are eager to please voters with generous spending not financed by commensurate tax revenues.

Within a monetary union, fiscal indiscipline in one country affects other countries through a number of spillover channels:

- Income flows via exports and imports
- The cost of borrowing, as there is a single interest rate
- The fear that a default by a government on its public debt would hurt the union's credibility.

The presence of spillovers argues in favour of the coordination of fiscal policies within a monetary union. In practice, however, fiscal policy coordination is difficult. Member States have retained full sovereignty in budgetary matters, and budgets are both highly political and a key element of democratic oversight by national parliaments.

The theory of fiscal federalism provides arguments for and against the sharing of policy instruments. On the one hand, the presence of spillovers and of increasing returns to scale argues for policy sharing. On the other hand, the existence of national differences in economic conditions and preferences, and of asymmetries of information, argues against policy sharing. In case of doubt, the principle of subsidiarity posits that decentralization is the default option. The quality of government also matters.

The Stability and Growth Pact (SGP), an application of the excessive deficit procedure (EDP) envisioned in the Maastricht Treaty, is based on five organizing principles:

- 1 A definition of what constitutes an 'excessive deficit'
- 2 A preventive arm, designed to encourage governments to avoid excessive deficits
- 3 A corrective arm, which prescribes how governments should react to a breach of the deficit limit
- 4 Procedures designed to embed each country's budget process within a European framework, the European Semester, which is meant to constrain national parliaments
- 5 Sanctions.

The difficulties encountered in the implementation of the SGP can be traced to both economic and political considerations:

- From an economic viewpoint, targeting the annual budget deficit can lead to pro-cyclical policies, i.e. policies that reinforce either a slowdown or a boom. Revisions of the SGP have moved the focus towards cyclically adjusted budgets and the debt level.
- From a political viewpoint, the SGP faces a formidable contradiction. Fiscal policy is a matter of national sovereignty, in the hands of democratically elected governments and parliaments. At the same time, fiscal policy is recognized as a matter of common concern.

The EDP has been complemented with a Macroeconomic Imbalance Procedure (MIP) that runs in parallel. It rests on a scoreboard of indicators designed to identify early on unsustainable external deficits, excessive labour costs and prices that cannot be corrected through exchange rate depreciation and a host of other potential threats to macroeconomic stability.

Self-assessment questions

- 1 What is the difference between actual and cyclically adjusted budgets? Why are discretionary actions visible only in changes of the cyclically adjusted budget balance?
- 2 In Figure 17.2, identify years when fiscal policy is pro-cyclical, and years when it is counter-cyclical.
- 3 What are externalities and spillovers? How do they operate in the case of fiscal policy?
- 4 Explain the no-bailout clause.
- 5 What is the intended purpose of the Stability and Growth Pact?
- 6 In the right-hand chart of Figure 17.1, choose a country and identify how it differs from the EU average in the left-hand chart. What explanations can you imagine?
- 7 Compare the Stability and Growth Pact and the German debt brake.
- 8 Explain why fiscal policy would be strictly confined to the automatic stabilizers if the SGP required that the cyclically adjusted budget be balanced every year. What difference would it make if the cyclically adjusted budget had to be balanced on average over business cycles?
- 9 Why are fines under the Stability and Growth Pact sometimes described as pro-cyclical fiscal policy?
- 10 Why is there a contradiction between the Stability and Growth Pact and sovereignty in budgetary matters?

Essay questions

- 1 Compare majority voting, qualified majority voting and reverse qualified majority voting.
- 2 Does a debt default by a member country make it impossible for this country to remain in the Eurozone?
- 3 Some countries argue that the monetary union needs a common fiscal policy to match the common monetary policy. Evaluate this view.
- 4 In making its decision on whether to join the Eurozone, the UK Treasury studied the Stability and Growth Pact and stated:

Where debt is low and there is a high degree of long-term fiscal sustainability, the case for adopting a tighter fiscal stance to allow room for governments to use fiscal policy more actively is not convincing. Provided that arrangements are put in place to ensure that discretionary policy is conducted symmetrically, then long-term sustainability would not in any way be put at risk.

HM Treasury (2003), *Fiscal stabilisation and EMU*, Crown Copyright.

Interpret and comment.

References and further reading

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Chapter 19



We knew that a storm was brewing but, admittedly, we did not know exactly where. Neither did we know what would trigger it, or when it would come.

Jean-Claude Trichet,
President of the ECB,
Fifth ECB Central Banking
Conference, Frankfurt, 13
November 2008

The euro is like a bumblebee. This is a mystery of nature because it shouldn't fly but instead it does. So the euro was a bumblebee that flew very well for several years. Probably there was something in the atmosphere, in the air, that made the bumblebee fly. Now something must have changed in the air, and we know what after the financial crisis. The bumblebee would have to graduate to a real bee.

Mario Draghi, President of the ECB,
Global Investment Conference, London, 26
July 2012

The Eurozone in crisis

Chapter Contents

19.1	Stage one: the global financial crisis	476
19.2	Stage two: the public debt crisis in the Eurozone	480
19.3	Policy responses	497
19.4	Banks and public debt	501
19.5	What have we learned from the crisis?	507
19.6	Summary	

Introduction

The Eurozone was just celebrating its first decade of existence when the global financial crisis, which had started in 2007, morphed into a public debt crisis, concentrated on the area. The second stage of the great crisis has not merely marred the early achievements of the single currency, it has also revealed deep flaws in the construction of the Eurozone – described in earlier chapters. This concluding chapter looks at the crisis, which is bound to leave a profound imprint on the history of monetary integration in Europe. Some expect the Eurozone to emerge tighter and stronger while others foresee a break-up, and possibly the end of the euro.

This chapter is being completed in September 2018, at a time when the crisis appears to be over, but it has left deep scars. After years of controversy, often along national lines, a reasonably shared understanding of what happened is at hand. The chapter presents the results of this analysis, as well as some of the debates, past and present, in Section 19.1 (the global financial crisis) and Section 19.2 (the specific Eurozone crisis). Section 19.3 presents the policy responses, Section 19.4 looks at the special case of banks and Section 19.5 examines the lessons learned, and not learned.

19.1 Stage one: the global financial crisis

Between 2001, the year of the high-tech crisis, and 2007, the year of the financial crisis, the USA and much of the rest of the world enjoyed an unprecedented period of prosperity, the combination of sustained growth and declining inflation. The Great Moderation lasted longer and was more widespread than any previous cyclical upswing. Policy makers were quick to claim responsibility for this achievement, ignoring the silent build-up of tensions that have led to the worst economic crisis since the Great Depression. Knowledge of what had caused the Great Depression helped to contain the crisis that originated in the USA and promptly spread to Europe, but it led to rapid increases in public debt. This, in turn, set the stage for the second phase of the crisis, which has been concentrated in the Eurozone.

19.1.1 Financial deregulation

Following the Great Depression, for which US financial markets were blamed, strict regulation was designed to limit risk-taking by banks and financial institutions. The deregulation phase started in the 1980s and culminated in 1999 with the repeal of the Glass–Steagall Act of 1933. There followed a rapid expansion of the financial sector in the USA, and Europe soon followed with its own deregulation process associated with the Single European Act adopted in 1986 (although deregulation in Europe never went as far as in the USA).

A first result of deregulation was that banks developed activities not directly related to their traditional role of collecting deposits and making loans. Increasingly, banks became active investors themselves. In order to expand this lucrative activity, they borrowed globally and short term to invest globally in long-term financial instruments.¹ Doing so created two mismatches:

- 1 The *maturity mismatch* between short-term borrowings and long-term investments. As a result, banks had to continuously renew their borrowings; they became vitally dependent on their ability to do so.
- 2 The *currency mismatch*, between borrowing and lending in different currencies, meant that they could run into difficulty should exchange rate movements reduce the value of their lending (their assets) relative to the value of their borrowing (their liabilities).

The result was to increase the fragility of banks. The good years of the Great Moderation hid the build-up of risk, as did Basel II regulations that allowed banks to determine themselves the degree of riskiness of their assets. As explained in Chapter 18, because ordinary customer deposits are crucial to everyday economic life, banks cannot simply go bankrupt; if they fail, they must be bailed out. Thus, the major risks taken by banks were implicitly borne by their governments (and taxpayers), which naturally encouraged banks to take even more risks (this situation is called *moral hazard*). Avoiding the potential socialization of losses had been a key motivation of the Glass–Steagall Act, including restricting the banks to the dull – and

¹ In the terminology of Chapter 18, banks became highly leveraged.

not very profitable – business of deposit taking. Deregulation made banks more profitable, as long as the economic conditions were benign. Finance became ever more sophisticated, so much so that top bank managers lost track of what their rocket scientists² were cooking; they did not mind as long as profits were fat. Much as the roaring twenties preceded the 1929 Wall Street crash, golden boys (and girls) were running the quick money show until it collapsed.

19.1.2 The roots of the financial crisis

Part of this inventiveness was directed at US mortgages. Keen to encourage individual homeownership – the famed American dream – the US authorities adopted measures that made it possible and lucrative to lend to people long considered a bad risk. As the Great Moderation was taking hold, and with it the perception that growth was sure to persist for ever, bankers became less sensitive to risk. They approached people who until then could never hope to borrow³ and offered them the now-infamous subprime loans. These very special loans are explained in Box 19.1.

Box 19.1 The subprime mortgage loans

Low (or no) income households cannot borrow because regulation and banking practice establish a minimum ratio between debt service and income. Subprimes circumvented that restriction by offering loans with an initially low interest rate – and, therefore, low debt service – that would be significantly increased after two or three years. When the interest rate was stepped up, a new, similar, loan would be granted to enable the debtor to pay back the previous loan. If the price of the house had increased, the borrower could borrow even more, again at the initially low rate, and thus keep some cash after repaying the previous loan. Everyone loved this system, especially the US consumers who used houses like ATMs.¹

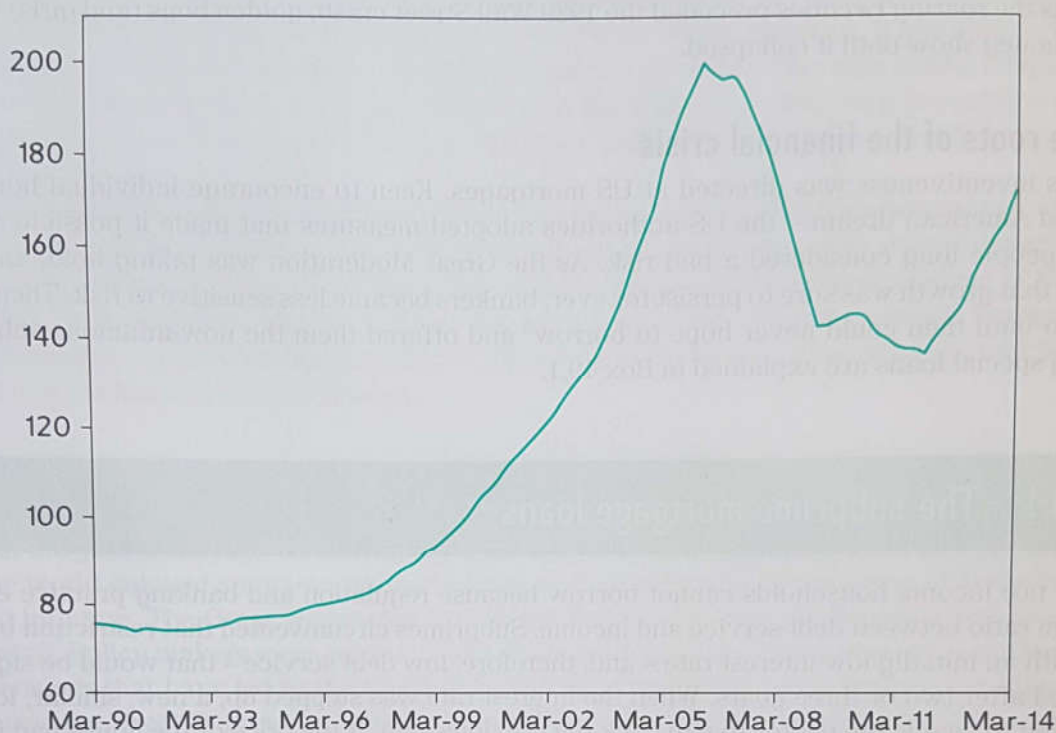
As house prices kept rising, refinancing before step-up was easy. However, if prices were ever to fall, the amount that could be borrowed before step-up would be lowered because the guarantee – the house itself – would be worth less money. For a long while, prices did keep increasing as abundant mortgage loans – both subprimes and others – fed strong purchases. The increase was spectacular – Figure 19.1 shows that house prices doubled between early 2000 and early 2006 – drawing ever more borrowers. A (very small) number of experts started to talk about a housing bubble, but nobody wanted to listen.² Prices paused in 2006. Doubt set in and lending slowed down markedly, which pushed house prices down. Borrowers could not avoid the step-up and many stopped servicing their debts. House prices started to decline precipitously, bankrupting borrowers and lenders alike. It took four years for prices to find a floor. By then, the world was in crisis.

Were the lenders crazy? This is where things become complicated but interesting. Specialized mortgage companies sprang up during the years of the Great Moderation. They borrowed money, granted loans and promptly sold the loans to banks. In this way, they were passing the risk of non-repayment to the banks while being able to lend again and again. Were the banks that purchased the loans crazy? Things now become even more complicated but also even more interesting. Banks that accumulated the loans, in turn sold them to other banks, which sold them to yet other banks with a twist, called securitization.

The securitization process consists of lumping together a large number of individual mortgage loans into one big bundle. The beauty of diversification (see Chapter 18) is that the bundle is less risky than any of its constituent loans taken separately as long as they do not sour at the same time.

² Legend has it that, following the collapse of the Soviet Union, many scientists went to work for Western financial institutions eager to draw on their mathematical prowess to invent complex financial instruments.

³ These people have been mischievously characterized as NINJAs (No Income, No Job or Address).

Figure 19.1 Housing prices in the USA (Index: January 2000 = 100)

Source: Bank for International Settlements.

Next, the bank divides the bundle into formally independent 'tranches', which it then ranks. Thus if some mortgage loans were to be defaulted upon, the loss would go to the lowest tranche. If the losses exceeded the value of the lowest tranche, they would go to the next lowest one, and so on. The top tranches were accordingly considered perfectly safe; a great many loans would have to sour for these tranches to be affected, and that was considered impossible. The top tranches received an AAA ranking and sold at a high price. The lowest tranches sold for much less, but still at a nice price given the unbounded optimism of the Great Moderation years. The ultimate buyers were often the world's largest and most prestigious banks.

These banks bought into the diversification argument: the individual loans were very different because they were granted to different people whose abilities to pay back were unrelated. This meant that the likelihood that many loans would sour together was negligible, even though the likelihood that any one of them would not be repaid was quite high. The problem was that the subprime loans relied on the belief that housing prices would continue rising for the indefinite future. When housing prices started to fall, the supposedly unlikely event of all loans going bad at the same time proved to be reality. This meant that the AAA tranches were junk, as the ultimate holders then discovered.

¹ A number of mortgage companies have since been prosecuted for deceptive selling practices. Some of them actually remunerated people who were bringing new clients to them, irrespective of their borrowing ability.

² Yale economist and co-author of *Irrational Exuberance*, Robert Shiller, famously earned the nickname Mr Bubble in 2005 when he stated: 'It's worthwhile to reflect that although home prices have gone up a lot in the recent years, they are just the same houses, right? There's no change in the services they provide. It's just the value we put on them. And so a house's value can just evaporate overnight, too. If people suddenly get very wary of investing in houses because they don't think the prices are going to go up or if they think they're going to fall, then that will cause home prices to fall' (<http://www.npr.org/templates/story/story.php?storyId=4679264>).

Subprime mortgages existed only in the USA, largely because consumer protection legislation in Europe and elsewhere would not allow people to engage in the highly dangerous step-up mechanism. But why did the collapse of housing prices in the USA result in a global financial crisis? After all, the subprime mortgage market was small relative to the US financial system. This reasoning proved to be wrong because it ignored the linkages between financial institutions.

Many of the world's largest banks had eagerly played the subprime game; now they faced heavy losses and looked alarmingly fragile. These banks were mainly from the USA, the UK, France, the Netherlands, Belgium and Germany, because banks in other countries (Spain and Italy, for instance, as well as in Asia and Latin America) were instructed by their supervisors not to wade into such unknown business. Hoping to weather the shock, they tried hard to conceal their situation from one another, and from their supervisors. They could do so because many of their now-toxic assets were owned by subsidiaries – the so-called shadow banking system – that were not banks and therefore not subject to tight supervision and regulation. As each bank was using the same trick to claim good health, each suspected all others of doing the same. This asymmetric information game led to widespread suspicion among banks, and halted their mutual borrowing and lending, as explained in Chapter 18.

19.1.3 Banks: meltdown and rescues

In April 2007, one of the largest US mortgage lenders, New Century Financial Corporation, declared bankruptcy. In July, one of the jewels of Wall Street, Bear Stearns, announced that it would stop honouring commitments on one of its funds. When BNP Paribas did the same in August 2007, the US interbank markets froze, as did those in other major financial centres around the world in which large banks were active. Many banks could not find the cash that they needed for routine daily operations. Central banks scrambled to provide liquidity directly to these banks in the hope of maintaining normal banking operations.

For a while, things seemed to quieten down, but just below the surface trouble was really brewing. As house prices quickly fell, loan delinquency rose and banks faced growing losses. These losses were moderate but banks were increasingly unable to operate. Global banks are tightly linked by a myriad of mutual loans so that the chain is as strong as its weakest link. Between September 2007 and the spring of 2008, several major banks failed, including Britain's Northern Rock and Wall Street's Bear Stearns, which was taken over by JPMorgan Chase with the help of the US Treasury.

The failure of Lehman Brothers on 15 September 2008 triggered the worst financial crisis since 1929. This time, the US authorities refused to intervene. They considered that Lehman had taken huge but highly profitable risks, and they did not want taxpayers to face the consequences. It took only a few hours to realize that Lehman owed considerable sums to nearly every financial institution that mattered, both in the USA and Europe. The genie was out of the bottle and the crisis was about to spread to many of the world's largest banks.

Actively cooperating, central banks around the world scrambled to support their banks. They offered cash, they bought tons of toxic securities derived from mortgage loans, and they experimented with various innovative rescue measures. Within a few months, the US Federal Reserve Bank more than doubled the size of its balance sheet, while the ECB's own balance sheet increased by more than 50 per cent (see Figure 19.11 below), something never seen before.

The contagion from the obscure subprime market, largely in the hands of hardly known, local mortgage-lending companies, to the largest financial establishments in both the USA and Europe is striking. Banks found themselves unable to honour their maturing borrowings. They were forced to sell some of their assets, quickly and at whatever price they could fetch. Fire sales, as this panic strategy is called, meant that a wide range of fine assets lost value, which triggered losses several times bigger than those directly linked to the subprime-backed securities. Interestingly, Asian and Latin American banks, badly burned in previous financial crises, had stayed out of the subprime business. This allowed them to ride out the crisis relatively unscathed. This was a stunning change in fortune.⁴

⁴ Most of the financial crises of the 1980s and 1990s occurred in Latin America and East Asia, as they deregulated their markets to join the global system. These countries, from the top leader to the woman in the street, deeply resented the conditions attached to IMF rescue programmes as well as being lectured to by US and European policy makers. By 2008, these countries could hardly conceal their glee.

Housing price bubbles also occurred in Europe, especially in Ireland, Spain and the UK. As in the USA, housing first stopped growing and then started to decline. Although subprime-like mortgages are unlawful in Europe, many banks or mortgage lenders found themselves overextended and faced mounting losses. Lenders like Northern Rock in the UK, Allied Irish Bank in Ireland and numerous Spanish *cajas* (regional savings and loan banks) in Spain had to be rescued.

19.1.4 Avoiding a new Great Depression

When house prices peaked in the USA and it emerged that the subprime edifice would crumble, the authorities – governments and central banks – were more exasperated than concerned. They resented what they saw as reckless risk taking. They particularly disliked investors stating that the crisis would only worsen until troubled banks were bailed out. They initially wanted to resist what they saw as a form of blackmail.⁵ However, they soon remembered the lessons learned from the Great Depression:

- Large financial institutions – called systemic, because their failures can drag the whole financial system and the economy down into a tailspin – must be rescued.
- Deep distress in the financial system is soon followed by a profound and long-lasting recession.
- Central banks must provide liquidity to the financial system and adopt sharply expansionary policies.
- Governments must use fiscal policy to prevent a vicious cycle of recession and large budget deficits.

The authorities did all of that. Central banks provided massive amounts of liquidity, interest rates were slashed to the zero lower bound and banks were kept afloat. Everywhere, the recession that followed the financial crisis sharply reduced tax revenues. The London G20 Summit in 2009 (pictured) called upon all governments to urgently adopt expansionary policies: 'We are undertaking an unprecedented and concerted fiscal expansion, which will save or create millions of jobs which would otherwise have been destroyed, and that will, by the end of next year, amount to \$5 trillion, raise output by 4 per cent, and accelerate the transition to a green economy. We are committed to deliver the scale of sustained fiscal effort necessary to restore growth.'⁶



© European Union, 2014.

The impact on budget deficits was dramatic; see Figure 19.2. Among the few countries that had paid great attention to fiscal discipline before the crisis, Ireland (not shown) and Spain apparently lost control of their budgets because they had to rescue their banks; in 2010, the Irish government spent more than 30 per cent of its GDP on bank bailouts. The build-up of public debt is the immediate cause of the next crisis, the Eurozone debt crisis, to which we now turn. However, it must be pointed out that the UK and the USA let their budgets deteriorate to the same extent as the Eurozone countries (those in the left-hand chart), which experienced a crisis. This too must be explained.

19.2 Stage two: the public debt crisis in the Eurozone

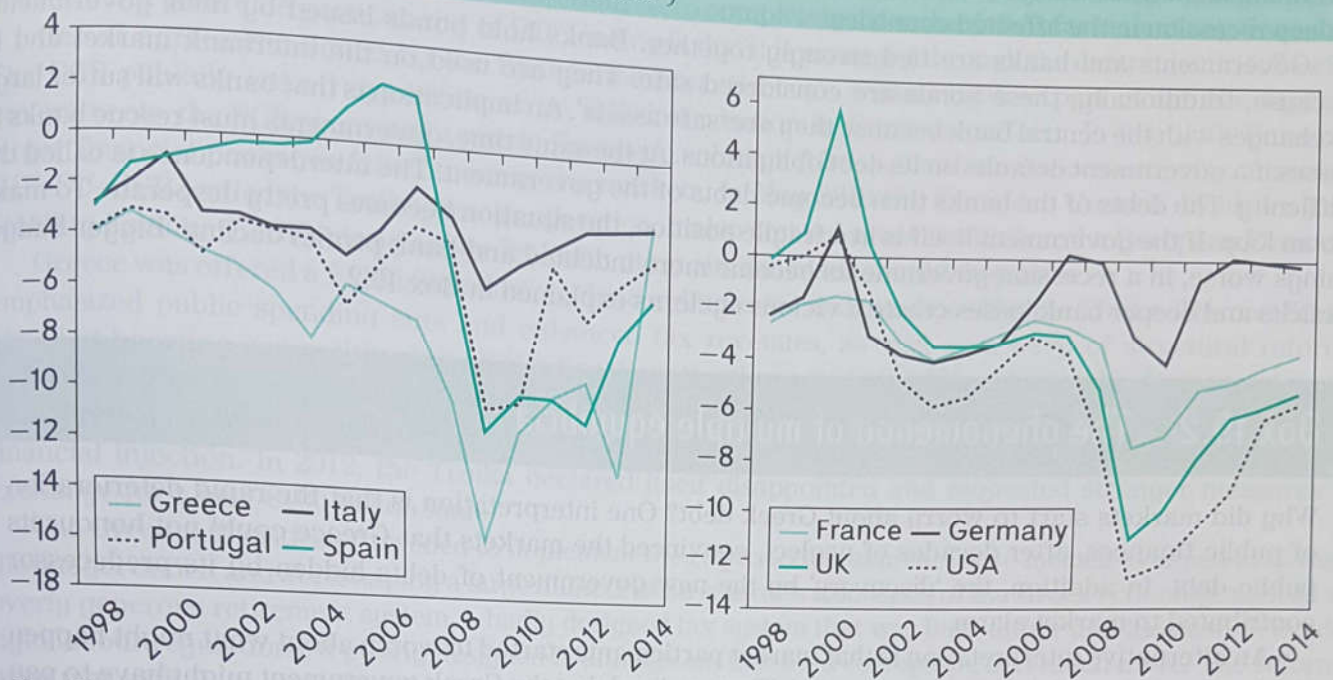
19.2.1 The legacy of the financial crisis: a paradox

If the goal was to return quickly to positive growth, by early 2010 things looked good, as Figure 19.3 shows. The recession had been deep but relatively short-lived by previous standards. However, while the USA went on growing, the Eurozone underwent a 'double dip' with a second recession in 2012–13. The recovery from that second recession was very slow.

⁵ Initially, Mervyn King, the Governor of the Bank of England, famously refused to bail out Northern Rock: 'The provision of such liquidity support undermines the efficient pricing of risk. . . . That encourages excessive risk-taking and sows the seeds of a future financial crisis' (Letter to the Treasury Select Committee, 12 September 2007).

⁶ G20 Leaders Statement (https://www.g20.org/sites/default/files/g20_resources/library/London_Declaration.pdf).

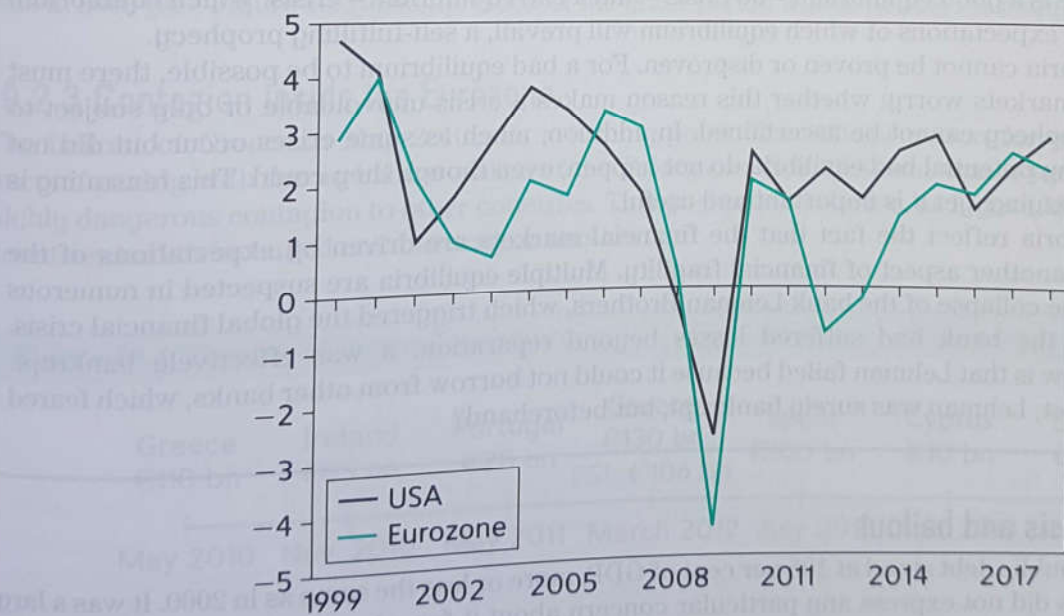
Figure 19.2 Budget balances, 1999–2014 (% of GDP)



Note: The scale is not the same in both charts.

Source: *Economic Outlook*, OECD.

Figure 19.3 Real GDP growth, 1999–2018



Notes: Forecasts for 2018.

Source: *Economic Outlook*, OECD.

Negative growth and large budget deficits resulted in fast increases in public debts when measured as a ratio to GDP. (This is the right measure, because debts must be paid for by taxes, and taxes are as a ratio to GDP.) The result is an amazing paradox: the financial crisis essentially levied on the incomes that make up GDP.) The result is an amazing paradox: the financial crisis led governments to run considerable budget deficits to contain the recession, which worked, but the deficits

led financial markets to become worried about the sustainability of public finances, which then provoked a deep recession in the affected countries.

Governments and banks are tied strongly together. Banks hold bonds issued by their governments because, traditionally, these bonds are considered safe. They are used on the interbank market and in exchanges with the central bank because they are 'safe assets'. An implication is that banks will suffer large losses if a government defaults on its debt obligations. At the same time, governments must rescue banks in difficulty. The debts of the banks then become debts of the government. The interdependence is called the doom loop. If the government itself is in a fragile position, the situation becomes pretty desperate. To make things worse, in a recession governments become more indebted and bank profits decline. Bigger budget deficits and deeper bank losses create a vicious cycle, as explained in Box 19.2.

Box 19.2 The phenomenon of multiple equilibria

Why did markets start to worry about Greek debt? One interpretation is that the rapid deterioration of public finances, after decades of neglect, convinced the markets that Greece could not honour its public debt. In addition, the 'discovery' by the new government of debts hidden by its predecessor contributed to market alarm.

An alternative interpretation is that market participants started to worry about what might happen if other market participants were worried. They realized that the Greek government might have to pay a higher interest rate to keep borrowing and the cost of servicing the debt could rise quickly, adding to the deficit. This would trigger further interest rate increases, larger deficits, and so on.

The subtle, but crucial, difference between the two interpretations is that the first considers that a debt default had become unavoidable, while the second implies that the crisis occurred because the markets worried that it could occur, not really because it had become unavoidable. The second scenario is a case of multiple equilibria: a crisis may or may not occur, depending on what markets worry about. There is a good equilibrium – no crisis – and a bad equilibrium – crisis. Which equilibrium occurs depends on expectations of which equilibrium will prevail, a self-fulfilling prophecy.

Multiple equilibria cannot be proven or disproven. For a bad equilibrium to be possible, there must be a reason why markets worry; whether this reason makes a crisis unavoidable or only subject to a self-fulfilling prophecy cannot be ascertained. In addition, much as some crises occur but did not really have to, many potential bad equilibria do not happen, even though they could. This reasoning is admittedly a bit dizzying, yet it is important and useful.

Multiple equilibria reflect the fact that the financial markets are driven by expectations of the future. This is yet another aspect of financial fragility. Multiple equilibria are suspected in numerous crises, including the collapse of the bank Lehman Brothers, which triggered the global financial crisis. One view is that the bank had suffered losses beyond reparation; it was effectively bankrupt. The alternative view is that Lehman failed because it could not borrow from other banks, which feared it might fail. Ex post, Lehman was surely bankrupt, but beforehand?

19.2.2 Greece: crisis and bailout

By late 2007, Greek public debt stood at 105 per cent of GDP, more or less the same as in 2000. It was a large amount, but markets did not express any particular concern about it for a long period, at least according to the data in Figure 13.8. By late 2009, the debt had jumped to 127 per cent of GDP. This is when the view of financial market participants shifted. The interest rate at which the Greek government borrows, long quasi-identical to the German bond rate, started to rise. While one may quibble about whether the Greek government could honour its debt at the pre-crisis interest rate, there is little doubt that the burden of debt service became unbearable once the rate climbed to 10, then 15 and 20 per cent. By early 2010, the Greek government was facing a desperate situation.

When a government finds itself unable to borrow, or only at punitive rates (see Figure 18.6), the normal solution is to apply to the International Monetary Fund (IMF) for emergency assistance. The IMF provides

conditional loans: it requires the government to take remedial action. Promptly reducing a budget deficit under IMF monitoring is painful, but the alternative, to completely close the deficit for lack of any financing, is even more painful. A particularity of IMF lending is that it is arranged through the central bank, following a letter of agreement signed by the finance minister. Greece's central bank is part of the Eurosystem. The ECB publicly voiced opposition to an IMF intervention in Eurozone affairs. In line with Eurozone governments, the ECB promoted a purely European solution. After several announcements of increasingly larger financial packages failed to sway the markets, in May 2010 the European Council decided a joint IMF-EU-ECB (called the Troika) rescue operation. It also created a new institution, the European Financial Stability Facility (EFSF), designed to deal with other similar cases should they arise.

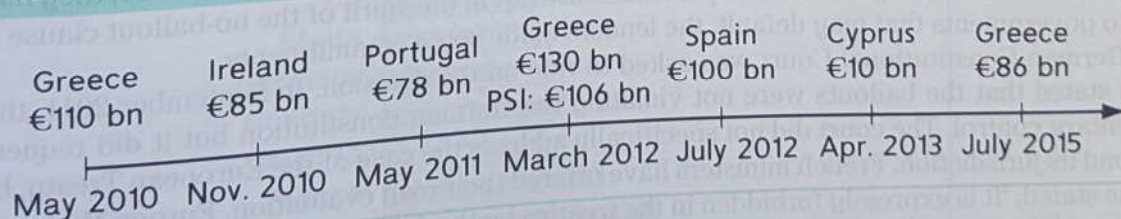
Greece was offered a €110 billion loan under conditions set and monitored by the Troika. The conditions emphasized public spending cuts and enhanced tax revenues, as well as a bevy of structural reforms aimed at boosting competitiveness. But a fiscal contraction acts fast while structural reforms take years to produce effects. Unsurprisingly, one year later the Greek economy was gripped in a severe recession, its tax revenues were falling, the deficit situation had not seriously improved and Greece needed a fresh financial injection. In 2012, the Troika declared itself disappointed and requested stronger measures in exchange for a new €100 billion loan.

The Greek authorities proceeded to implement the requested measures. These measures aimed at closing the budget deficit and at reshaping a large number of structural weaknesses of the Greek economy, such as an overly generous retirement system, a badly designed tax system that was both unfair and too easy to evade, rigid labour regulations, a poorly designed health system that bred corruption, and much more. The reforms were met with fiery oppositions, with often violent street demonstrations. In early 2015, a new government was elected after promising to reject the conditions imposed by the Troika. The interest rate on Greek bonds immediately jumped (Figure 18.6). Tense negotiations with the Troika raised the prospect of a default – by then most of the public debt was owed to the other Eurozone governments – until a last-minute agreement was reached in July 2015. The government won a new loan of €86 billion and a long (up to 30 years) grace period on its debt, but it accepted the conditions that it had rejected earlier. In August 2018 this new programme was completed and both sides declared victory. Yet, at 180 per cent of GDP, the debt is now much higher than it was in 2009 (see Figure 19.5) and the clock of the grace period will be ticking for many years to come.

19.2.3 Contagion inside the Eurozone

The bailout of Greece in May 2010 was a turning point. The official reason for a decision that stands uncomfortably with the no-bailout clause of the Treaty (see Box 19.3) was that it was needed to prevent a highly dangerous contagion to other countries. This goal proved elusive, as Figure 19.4 shows. In total five countries had to be bailed out, one way or another.

Figure 19.4 Timeline of financial assistance



Box 19.3 Do the country bailouts violate the Treaty?

Two articles of the European Treaty were interpreted as making it impossible for the ECB and other Eurozone governments ever to lend directly to any other Eurozone government. The idea was to buttress fiscal discipline and warn governments that they would have to fend for themselves (e.g. by applying

to the IMF for emergency assistance) if they became unable to borrow from financial markets, banks and individuals. The first article concerns the ECB:

Article 123(1): Overdraft facilities or any other type of credit facility with the European Central Bank or with the central banks of the Member States (hereinafter referred to as 'national central banks') in favour of Union institutions, bodies, offices or agencies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States shall be prohibited, as shall the purchase directly from them by the European Central Bank or national central banks of debt instruments.

The second article concerns governments and the Commission:

Article 125(1): The Union shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project. A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project.

This prescription was widely called the no-bailout clause. The official answer was to invoke the solidarity principle from yet another article:

Article 122(1): Without prejudice to any other procedures provided for in the Treaties, the Council, on a proposal from the Commission, may decide, in a spirit of solidarity between Member States, upon the measures appropriate to the economic situation, in particular if severe difficulties arise in the supply of certain products, notably in the area of energy.

(2) Where a Member State is in difficulties or is seriously threatened with severe difficulties caused by natural disasters or exceptional occurrences beyond its control, the Council, on a proposal from the Commission, may grant, under certain conditions, Union financial assistance to the Member State concerned. The President of the Council shall inform the European Parliament of the decision taken.

The official argument also stated that the ECB has not lent directly to governments but only bought existing debt on financial markets, as authorized by Article 123. Neither have governments become 'liable for or assume[d] commitments' of other governments as forbidden by Article 125; they have only offered loans. However, large ECB bond purchases are not in the spirit of the no-bailout clause and, by lending to governments that may default, the lenders made some commitments.

The German Constitutional Court was asked to rule on the decision. In September 2011, the court formally stated that the bailouts were not violating the German constitution but it did request more parliamentary control. The court did not specifically address the case of the European Treaty, because it is beyond its jurisdiction. French ministers have offered their own evaluation. Europe Minister Pierre Lellouche stated, 'It is expressly forbidden in the treaties by the famous no-bailout clause. De facto, we have changed the treaty';¹ Finance Minister Christine Lagarde (a professional lawyer) said, 'We violated all the rules because we wanted to close ranks and really rescue the euro zone. . . . The Treaty of Lisbon was very straightforward. No bailout.'²

The case then went to the European Court of Justice, which did not deem the loans incompatible with the Treaty on the basis of Article 122.

¹ *Financial Times*, 27 May 2010.

² Reuters, <http://www.reuters.com/article/2010/12/18/us-france-lagarde-idUSTRE6BH0V020101218>.

19.2.4 Why contagion within the Eurozone?

Contagion within the Eurozone is highly troubling, as is the fact that no other developed country elsewhere faced a debt crisis during that troubled period. There must be something special about the monetary union. It may be a fundamental implication of any currency area, or a flaw in the design of the Eurozone, or policy mistakes, or all of these factors. The explanation matters a great deal because it clearly has lasting policy implications. Unsurprisingly, controversies abound. The main interpretations are presented here.

Indebtedness

Figure 19.5 displays public debt to GDP ratios for a large number of developed countries in 2009, on the eve of the Eurozone crisis, and forecasts for 2019. We return to the 2019 situation further down. The countries are ranked according to their public indebtedness in 2009. The debt ratio, alone, cannot explain why some countries, and not others, faced the wrath of the financial markets. Ireland, for instance, had been one of the most fiscally disciplined countries in the EU. As explained above, its public finances deteriorated suddenly because of the doom loop, when a massive banking crisis had to be met with a government rescue. Portugal,

Figure 19.5 Public debt in 2009 and 2019 (% of GDP)



Source: AMECO, European Commission.

on the other hand, had a poor record of fiscal discipline, and the widely held view that its growth rate was likely to be meagre suggested that it would be difficult to reduce its public indebtedness. Yet, Portugal was not in an obviously worse situation than Japan, Italy or even the USA. These observations are one reason why the crisis is often seen as a case of multiple equilibria: for some reasons, it just so happened that markets focused their attention on some specific countries and not others. These countries were vulnerable and could not turn the tide back, but so were others that escaped suspicion. This interpretation begs two questions: why these countries and why only Eurozone countries? Let us first deal with the second question.

No lender of last resort

Japan and the USA were two countries whose public debts were already high in 2009, but no one could imagine that their governments would default. The reason is simple: their central banks would never let that happen. Countries with their own currencies have a national central bank that can help their governments out. Indeed, most central banks are understood to be ready to act as lender of last resort for their governments by buying large amounts of the public debt. In a world of multiple equilibria, such beliefs make the difference between crisis and no crisis. In the Eurozone, instead, the ECB was believed to be forbidden to rescue public debts (see Box 19.3). In that respect, the euro is a foreign currency for its member governments.⁷ In fact, several Eurozone governments, from countries not hit by the crisis, have strenuously opposed large-scale purchases of public bonds by the Eurosystem. They also rejected the issuance of Eurobonds, national public debts jointly guaranteed by all Eurozone members, an issue presented in Section 19.5. In both cases, they feared both moral hazard – an encouragement to continue with budget deficits – and the possible sharing of losses if a government were to default. Such opposition has led the ECB to repeatedly state that it had no inclination to help stressed governments out. As we will see, the ECB has abandoned this view, with spectacular results.

It is not just the role of the central bank as lender of last resort to governments that was at stake, but also its role as lender of last resort to banks. Three of the five crisis countries – Cyprus, Ireland and Spain – faced the urgent necessity to bail their banks out. Had the ECB acted as lender of last resort to banks, it could have provided some of the needed funds. Without it, they had to borrow as predicted by the doom loop view. Here again, considerations of moral hazard and of potential losses prevented the ECB from taking on this role. Moral hazard, the fact that banks take more risk when they know that they are protected, can be contained through proper regulation, supervision and resolution procedures, as explained in Chapter 18. As for losses, they can be limited, possibly even avoided, with clever resolution. Box 19.4 relates how the Swiss government and central bank actually made a profit when they teamed up to save UBS bank. This all suggests that the moral hazard argument is serious but, in this case, the consequence of poor regulation, supervision and resolution.

Box 19.4 The bailout of UBS

UBS was Switzerland's (and the world's) largest bank, with global operations and assets worth close to four times the country's GDP. UBS had acquired vast amounts of assets based on US mortgages, including the infamous subprimes. Following the collapse of Lehman Brothers, UBS appeared to be in serious difficulty. Since it was too big to fail, the Swiss authorities promptly decided to bail it out. However, they did not want to offer a gift to UBS. Quite the contrary, they imagined a clever arrangement that would both protect taxpayers and potentially be profitable. The November 2008 bailout of UBS included two steps.

First, the Swiss federal government recapitalized UBS. This took the form of a loan that could be transformed into shares at the discretion of the government. Thus, either UBS would reimburse the government, including interest on the loan, or the government would become a shareholder – and then sell its shares to make a profit – whichever was better for taxpayers. In fact, the government sold its loan to UBS to private investors in August 2009 and made a 20 per cent profit from the transaction.

Second, the central bank, the Swiss National Bank (SNB), created a subsidiary called the Stabfund. It was designed to both limit potential losses to the SNB and provide the possibility of making a profit. The fund bought much of UBS's toxic assets at market price, at a time when the market was depressed.

⁷ According to de (2011), '[m]embers of a monetary union issue debt in a currency over which they have no control'

The Stabfund received 90 per cent of its resources from a loan issued by the SNB, the remaining 10 per cent being provided by UBS. The Stabfund, under direct SNB control, was then asked to sell its portfolio of assets – acquired at a low price – at its discretion over a period of several years, with the objective of protecting the SNB. If the Stabfund suffered losses, the first 10 per cent was to be borne by UBS. If losses exceeded 10 per cent, the SNB would not be fully reimbursed. If the sales were profitable, the SNB would receive the full amount of the loan, including interest, plus 50 per cent of the profits.

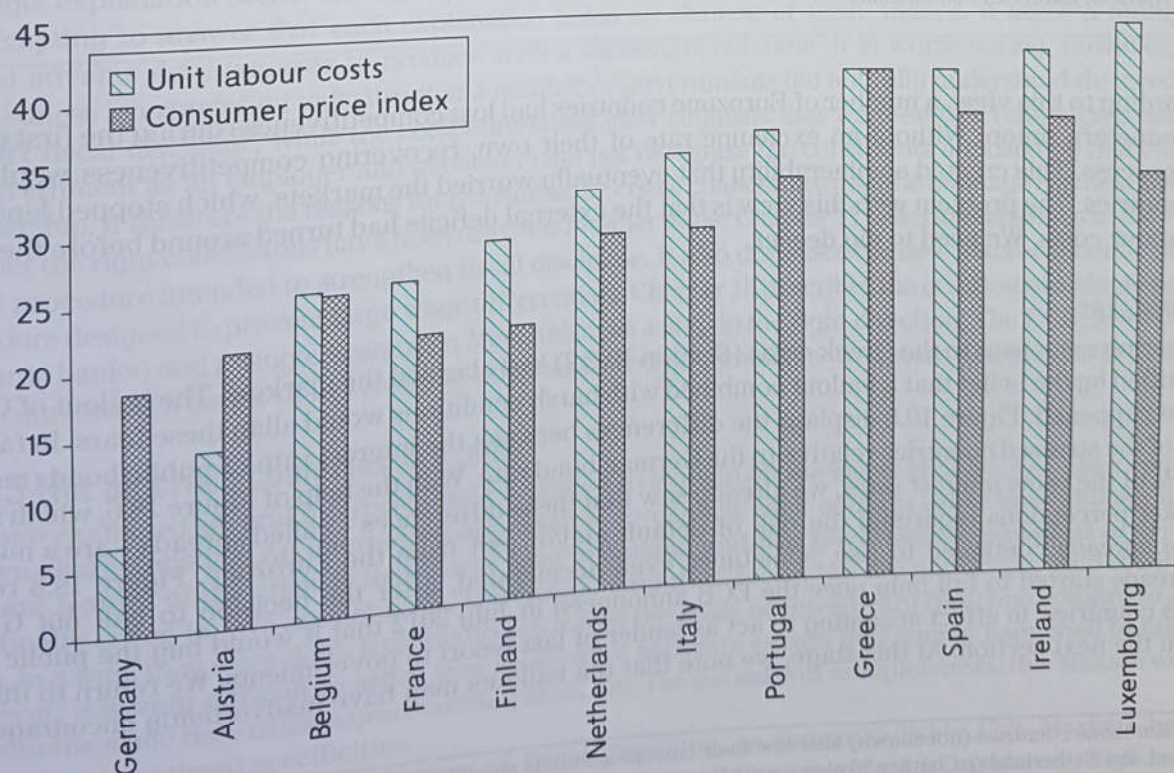
In 2013, the operation was concluded. The SNB announced that it had made a substantial profit (US\$3.8 billion) on top of the interest income (US\$1.6 billion).

Competitiveness

Combining the phenomenon of multiple equilibria and the inability of the ECB to act as lender of last resort to banks and governments goes a long way towards explaining the puzzle revealed by Figure 19.5. Yet, several other Eurozone countries escaped a full-blown crisis in spite of their public indebtedness, so we need to answer the question raised earlier: how can we explain why some specific countries fell victim to the crisis? One explanation emphasizes competitiveness. With exchange rates irremediably fixed, a Eurozone country that has let its competitiveness deteriorate must regain it the hard way, through wage and price moderation. This situation is precisely what the OCA theory, presented in Chapter 15, identifies as the main cost of a monetary union.

Figure 19.6 shows how two indicators of competitiveness evolved between 1999 and 2009, during the first decade of the euro and before the crisis. Unit labour costs measure how much, on average, firms must spend on labour – wages and associated taxes – to produce one unit of GDP. Inasmuch as firms tend to pass higher labour costs onto their prices in order to maintain their profitability, the consumer price index provides another gauge of competitiveness. The figure reveals that the crisis countries are those where the two indicators deteriorated the most. Their real exchange rates relative to other Eurozone countries appreciated, which resulted in a loss of competitiveness. Note that the differences, accumulated over a decade, are very large: labour costs in Ireland, Spain and Greece increased by 30 percentage points faster than in Germany.

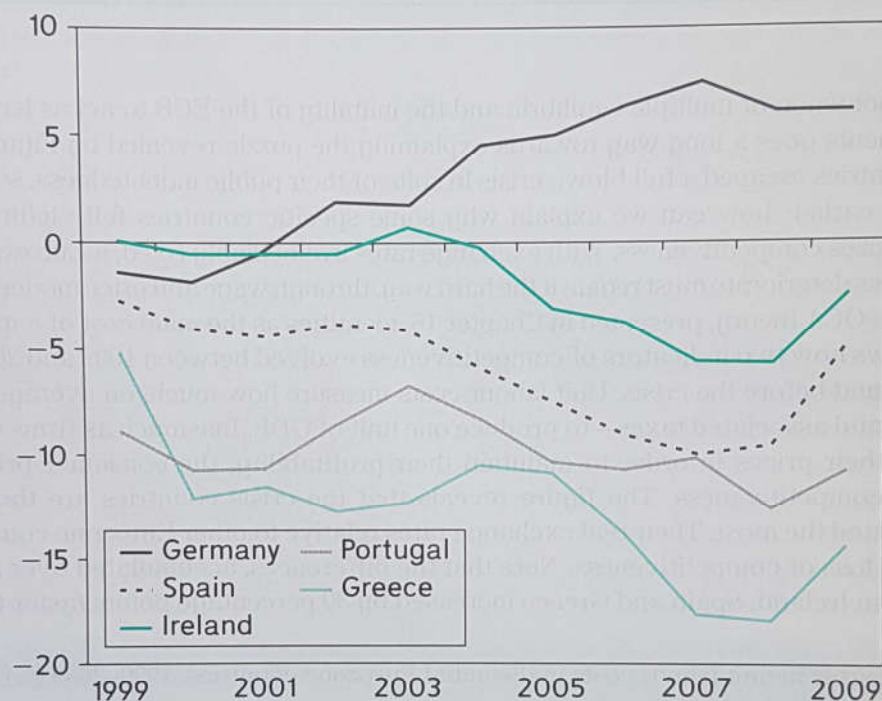
Figure 19.6 Increases in unit labour costs in the initial Eurozone countries, 1999–2009 (%)



Source: AMECO, European Commission.

We would expect that the higher inflation countries would see their current accounts (exports less imports, both broadly defined) deteriorate, with the opposite happening in the lower inflation countries. This is exactly what happened, as confirmed by Figure 19.7.⁸ Note that the counterpart of the external deficits were capital inflows, which added to inflation pressure. Why were investors and banks willing to shield these countries from their growing loss of competitiveness? With hindsight, this seems highly unwise but, at the time, the monetary union seemed rock solid.

Figure 19.7 Current accounts, 1999–2009 (% of GDP)



Source: AMECO, European Commission.

According to this view, a number of Eurozone countries had lost competitiveness during the first decade of the monetary union. Without an exchange rate of their own, recovering competitiveness would be a painful process. This created a vulnerability that eventually worried the markets, which stopped lending to these countries. The problem with this view is that the external deficits had turned around before the crisis, as did labour costs. We need to dig deeper.

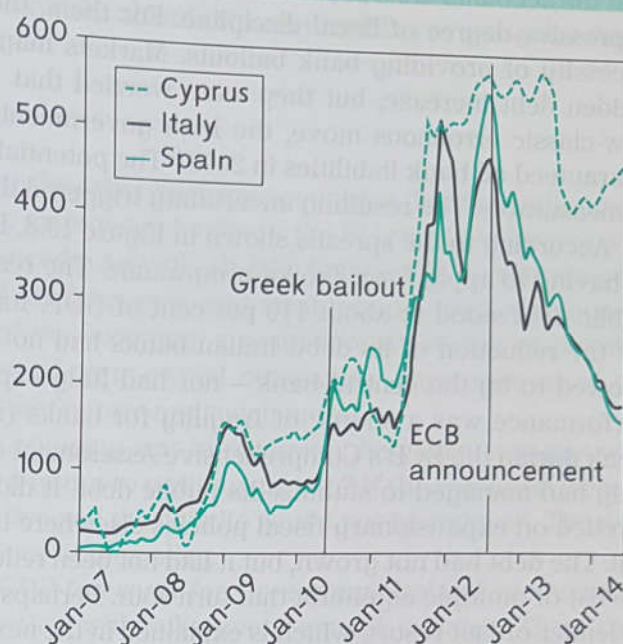
Policy mistakes

The dithering responses to the Greek crisis (Section 19.2.2) had alarmed the markets. The bailout of Greece was justified by the belief that a bailout combined with harsh conditions would allay these fears. In fact, the opposite happened. Figure 19.8 displays the differences between the interest rate of public bond (ten-year bonds) of the stressed countries relative to the German bond rate. With the help of Figure 18.6, which shows the levels of the same interest rates, we already saw that these differences – called spreads – are a measure of market perceptions regarding the risk of default and/or exit from the Eurozone. Figure 19.8 reveals that the spreads continued to rise, sometimes even accelerated, after the decision to bail out Greece. The spreads started to fall only once the ECB announced in July 2012 that it would buy the public debts of crisis countries, in effect accepting to act as lender of last resort to governments. We return to this key event in the next section. At this stage, we note that the bailouts may have inadvertently encouraged the

⁸ Other Eurozone countries (not shown) also saw their current accounts steadily improve (Austria) or remain strongly positive (Finland, the Netherlands). Chapter 16 also covers this issue.

The graph illustrates the significant increase in borrowing costs for Greece, Ireland, and Portugal during the 2008-2010 financial crisis. Greece's yield spikes dramatically to over 2500% in early 2012, while Ireland and Portugal also experience sharp increases, peaking around 800% and 1000% respectively in late 2011. The ECB announcement in late 2011 and the Greek bailout in late 2009 are marked as key events influencing the market.

Date	Greece (%)	Ireland (%)	Portugal (%)
Jan-07	~0	~0	~0
Jan-08	~0	~0	~0
Jan-09	~200	~100	~100
Jan-10	~500	~200	~200
Jan-11	~1200	~500	~800
Jan-12	~2500	~400	~500
Jan-13	~800	~100	~300
Jan-14	~300	~0	~100



Source: International Financial Statistics, IMF.

Appraisal

19.2.5 Not all crisis countries are alike

Some countries have a poor history of fiscal discipline, as shown in Table 17.2. Markets had good reasons to doubt that Greece and Portugal could continue adding more debt to an already high mountain

without eventually defaulting. Greece came first, probably because a newly elected government revealed that the accounts of its predecessor were untruthful. Ireland and Spain, on the other hand, had displayed an impressive degree of fiscal discipline. For them, the problem resulted from the banking system and the necessity of providing bank bailouts. Markets may have trusted the Irish government to roll back this sudden debt increase, but they were worried that this would not be the end of the story. Indeed, in a now-classic erroneous move, the Irish government did not merely guarantee all bank deposits, it also guaranteed all bank liabilities in 2008.⁹ The potential cost of this guarantee was unknown, and in fact was immeasurable. The resulting uncertainty triggered the crisis. Much the same applies to Spain.

According to the spreads shown in Figure 19.8, Italy was in crisis, yet it managed to avoid the infamy of having to apply for a Troika programme. The reason why the markets fretted about Italy are clear: its public debt stood at about 110 per cent of GDP. Italy has not been growing for a while, which bodes ill for the reduction of its debt. Italian banks had not accumulated subprime-based assets – they were not allowed to by the central bank – nor had Italy experienced a house price bubble. Yet, the poor growth performance was a source of fragility for banks (indeed, several Italian banks have been identified as weak during the ECB's Comprehensive Assessment of 2014, and a few have failed since). Yet, for a decade, Italy had managed to stabilize its public debt. It did not let it grow a great deal during the crisis; in fact, it relied on expansionary fiscal policies elsewhere to contain the recession. In the end, the glass was half full. The debt had not grown, but it had not been reduced either. The spreads showed that Italy was next on the list of multiple equilibria that turn sour. Perhaps it was saved by the July declaration of the ECB to act as lender of last resort, which is explained in the next section.

Other countries also had reason to be concerned. France, too, had a poor record of fiscal discipline (Table 17.2) and its debt had almost reached 100 per cent of GDP in 2018. During the global financial crisis, the large French banks had accumulated toxic assets. The large German banks, too, were badly hit by the US subprime crisis, while many smaller local banks were known to be fragile. Its reputation as a fiscally disciplined country had been undermined during the 1990s but the adoption in 2009 of a constitutional zero-budget rule (see Chapter 17) was highly reassuring. Belgium also had a problem with some banks and, like Italy, had a lingering huge public debt. Somehow, all these countries sailed through the crisis.

19.3 Policy responses

The financial markets continuously warned policy makers that determined action was needed to stop the debt crisis. Much like the situation before the eventual collapse of Lehman Brothers, they asked for a comprehensive solution. Policy responses were partial and half-hearted, and a growing rift was evident within the Eurozone. Markets also questioned the wisdom of imposing fiscal restraints in the midst of a severe recession. They were concerned about the limited resources and the tools put in place, the situation of European banks and the role of the ECB. Things changed radically in July 2012 when the ECB took resolute action. The national governments, however, had yet to rise to the challenge.

19.3.1 Why did financial markets fret?

From the start, the financial markets worried that some governments might partly repudiate their public debts, thus imposing large losses on investors. They also worried about the wider repercussions, including bank failures and a possible break-up of the Eurozone. More than anything, however, markets hate uncertainty. In that respect, half-hearted policy responses have had a deleterious effect on financial markets, which in return have increased the pressure on governments. Many of the steep increases in interest spreads (Figure 19.8) can be traced back to policy decisions that markets perceived as 'too little, too late'. A good example is the creation of the European Financial Stability Facility (EFSF) in May 2010, at the time of the Greek bailout. The idea was to build a war chest big enough to 'shock and awe' the financial markets. The national governments announced that they had put together a package worth €750 billion. In addition to the €440 billion provided by the EFSF, the package also included €60 billion from the European Commission and €250 billion from the IMF. It quickly transpired that the €440 billion really

⁹ Who did it? Irish commentators maintain that the government was ordered to do it by the ECB. The ECB says it was the European Commission. The Commission claims that it was not involved.

meant €250 billion, that the Commission could not really provide €60 billion (about half of its annual budget) and that the IMF had made no ex ante commitment. The markets interpreted this situation as an indication that governments were either not aware of the risks ahead or were unwilling to recognize them. They concluded that the crisis would be left to fester.

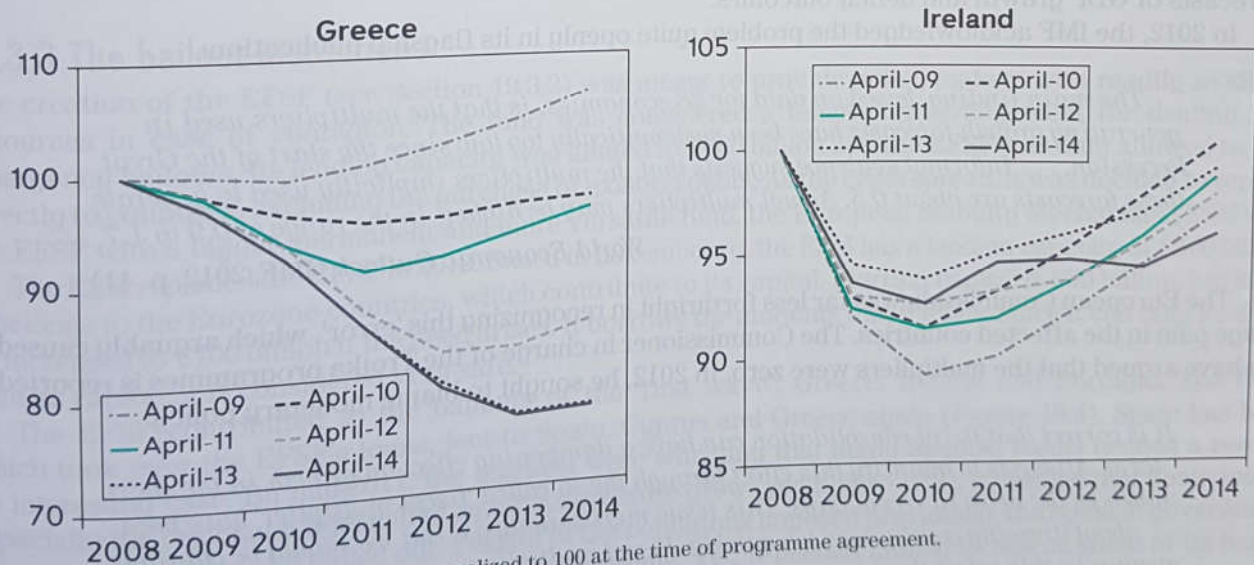
19.3.2 Fiscal policy strategy

The response to the Greek crisis became a template for the other Eurozone countries. In cooperation with the IMF – which so far had never agreed to co-organize emergency lending – the EU provided Greece with a loan to cover approximately one year's budgetary needs. As with all IMF loans, stiff conditions were attached. They called for public expenditure cuts and tax increases, and established a host of structural requirements designed to improve the performance of the economy: a reduction of the size of the civil service along with wage reductions, the privatization of state-owned companies, improvement of tax collection, elimination of closed-shop professions, pension reform and much more.

The wisdom of requiring fiscal austerity when the economy was in recession, however, was met with considerable doubt. Would not fiscal austerity prevent a return to positive growth? If the recession were to continue and possibly deepen, tax revenues would decline and the deficits would not be reduced. The debt ratio would just keep growing, defeating the very purpose of the policy.

Figure 19.9 presents the standard multi-year real GDP forecasts for Greece and Ireland produced by the IMF at the time of a programme agreement, together with subsequent annual updates. The Greek programmes were considered the least successful while the Irish programme was arguably the most successful. In the case of Greece, successive forecast revisions have led to large downward adjustments, each time further worrying the financial markets. The 2013 target for the Greek debt to GDP ratio was set in 2010 at 149 per cent; even after a debt cancellation worth 27 per cent of GDP, the debt still stood at 176 per cent.

Figure 19.9 IMF forecasts for real GDP



Source: Sapir et al. (2014).

Why did the IMF (and the Commission, working together) get it so systematically wrong? The technical aspects of the answer are presented in Box 19.5. Here, we quote from a report commissioned by the European Parliament:

All four countries have by and large adopted the fiscal consolidation measures prescribed by the Troika. However, debt-to-GDP levels increased more than originally foreseen. This

was mostly due to the larger-than-expected fall in economic output. A combination of factors is responsible for this substantial error in judgement: (a) the larger-than-expected fiscal multipliers, (b) the unexpected deterioration in the external environment, including an open discussion about euro area break-up undermining investor confidence, (c) an over-optimistic assessment of the initial conditions, (d) an underestimation of the weakness of some administrative systems and a lack of political ownership.

Sapir et al. (2014)

Box 19.5 The battle of the multipliers

The Troika requested exacting fiscal policy contractions. The logic was as follows. Countries that asked for support did so because they had lost market access, meaning that their governments could no longer borrow from banks or the bond markets. Without official help, therefore, they would be unable to run budget deficits because they could not borrow to plug the hole. The aim of the programmes was to restore market access as soon as was practicable. This was interpreted as a requirement to close the deficits as soon as was practicable.

The debate starts with the word 'practicable'. The Troika wanted that to be within three years. With some countries starting with very large deficits (Figure 19.2), the objective implied a massive fiscal policy contraction (in terms of Chapter 13, a large leftward shift of the *IS* curve). The debate quickly focused on the size of the fiscal multiplier. The fiscal multiplier is a number that answers the following question: if a government cuts its deficit by 1 per cent of GDP, by how much will GDP growth be reduced? The exact value of the number depends on circumstances and the details of the policy action, but a popular rule of thumb is that the multiplier is between 1 and 1.5. When the IMF and the Commission required that the deficits be cut by several percentage points, they did not forecast severe contractions. They suggested that the multiplier was very small. This assertion led to optimistic forecasts of GDP growth and deficit outcomes.

In 2012, the IMF acknowledged the problem quite openly in its flagship publication:

The main finding, based on data for 28 economies, is that the multipliers used in generating growth forecasts have been systematically too low since the start of the Great Recession. . . . Informal evidence suggests that the multipliers implicitly used to generate these forecasts are about 0.5. Actual multipliers may be higher, in the range of 0.9 to 1.7.

World Economic Outlook (IMF, 2012, p. 41)

The European Commission was far less forthright in recognizing this 'error', which arguably caused huge pain in the affected countries. The Commissioner in charge of the Troika programmes is reported to have argued that the multipliers were zero. In 2012, he sought to blame monetary policy:

It is correct that fiscal consolidation can have a dampening effect on growth in the short term. Attempts to quantify this effect through the so-called 'fiscal multiplier' have been much in the news in recent days. This issue merits analysis. But we should be cautious about drawing conclusions too quickly. Fiscal multipliers may indeed be larger on average in this crisis than in normal times. . . . That is not to say they are larger in every case. And we should ask whether worse-than-expected recessions in certain countries can be attributed only, or even mainly, to the effects of fiscal consolidation. Other factors have played a role in each slowdown. . . . The countries whose growth was revised most sharply down at a time when they were tightening fiscal policy were also those experiencing large rises in spreads and suffering the effects of the breakdown in monetary policy transmission in the euro area – a problem the European Central Bank has recognized.

Olli Rehn (2012)

The debate affected not merely the crisis countries under Troika programmes but the whole Eurozone. The European Commission emphasized the urgent need to reduce deficits throughout the Eurozone, thus implementing the Stability and Growth Pact. As indicated in Chapter 17, most Eurozone countries were placed under the EDP procedure. Figure 19.10 shows the average cyclically adjusted budget balances¹⁰ of the Eurozone as a whole alongside those of the USA and the UK over the crisis period. The comparison reveals that fiscal policy was much less expansionary in the Eurozone.

Figure 19.10 Cyclically adjusted budget balances: averages during 2007–2013 (% of GDP)



Source: *Economic Outlook*, OECD.

19.3.3 The bailout institutions

The creation of the EFSF (see Section 19.3.2) was meant to provide policy makers with readily available resources in case of contagion. The fund was considered a temporary arrangement for dealing with emergency bailouts. Its lending capacity was limited to €250 billion and the EFSF was only allowed to lend directly to countries, excluding the purchase of existing debts. As the crisis spread, it was decided to replace the EFSF with a bigger, permanent and more versatile fund, the European Stability Mechanism (ESM).

The ESM replaced the EFSF in 2012. Based in Luxembourg, the ESM has a lending capacity of €500 billion. It belongs to the Eurozone countries, which contribute to its capital. Starting capital is €80 billion, but it can be increased to €700 billion if the need arises. It borrows the amounts that it lends; since it can only lend less than its capital, it is considered very safe.

The EFSF contributed to the bailouts of the 'first wave': Greece, Ireland and Portugal. The ESM, which took over the EFSF's loans, lent to Spain, Cyprus and Greece again (Figure 19.4). Spain has been an interesting case. By mid-2011, the markets were worrying that many Spanish banks needed a rescue, especially the regional banks called *cajas*. As pressure grew (see Figure 19.8), it seemed that Spain would be the next country to be bailed out. Fearful of the conditions imposed previously, the Spanish government vehemently refused to apply for a Troika programme. Yet, it needed money to rescue some of its banks and did not want to borrow on the markets, fearful of the Irish precedent. After long negotiations, in order to avoid another shock, it was agreed to allow the ESM to lend money for bank rescues under a lighter programme called Precautionary Financial Assistance.

19.3.4 Monetary policy

Chapter 18 covers a number of monetary policy issues, including the problems created by the fragmentation of the financial markets. This section focuses on the macroeconomic aspects of monetary policy.

¹⁰ Section 17.1.3 explains that the cyclically adjusted budget balance is the correct way of interpreting government action.

Like the Federal Reserve and the Bank of England, the Eurosystem reduced its interest rate to zero, just more slowly, as the left-hand chart of Figure 19.11 indicates. This action has been controversial because recovery has been stronger in the USA and the UK than in the Eurozone, while the inflation rate is still (in mid-2018) significantly below the 'close to but below 2 per cent' definition of price stability. Critics have accused the Eurosystem of being 'behind the curve', reacting slowly to the turn of events rather than being proactive. The Eurosystem has reminded its critics that its mandate requires that it take no risk in terms of price stability, that the sovereign debt crisis is due to misguided government policies and that deep asymmetries (the conjuncture, financial market fragmentations) have undermined the effectiveness of monetary policy. Box 19.6 describes one such controversy.

Box 19.6 The ECB in July 2008

By August 2007, the Federal Reserve understood that the situation was precarious. The Bank of England initially refused to help out banks, because it felt they should face the consequences of their risky bets, but gave in in January 2008. The ECB did not move. In July 2008, when the Federal Reserve and Bank of England were quickly bringing their interest rates down to zero, the ECB even raised its interest rate (Figure 19.11). When Lehman Brothers collapsed in September 2008, however, the ECB changed its mind. It then followed the actions of the two other central banks, although not going all the way down to zero until June 2014, even though the Eurozone entered a deep recession in 2009 and the sovereign debt crisis, which started in early 2010, provoked a second recession a year later.

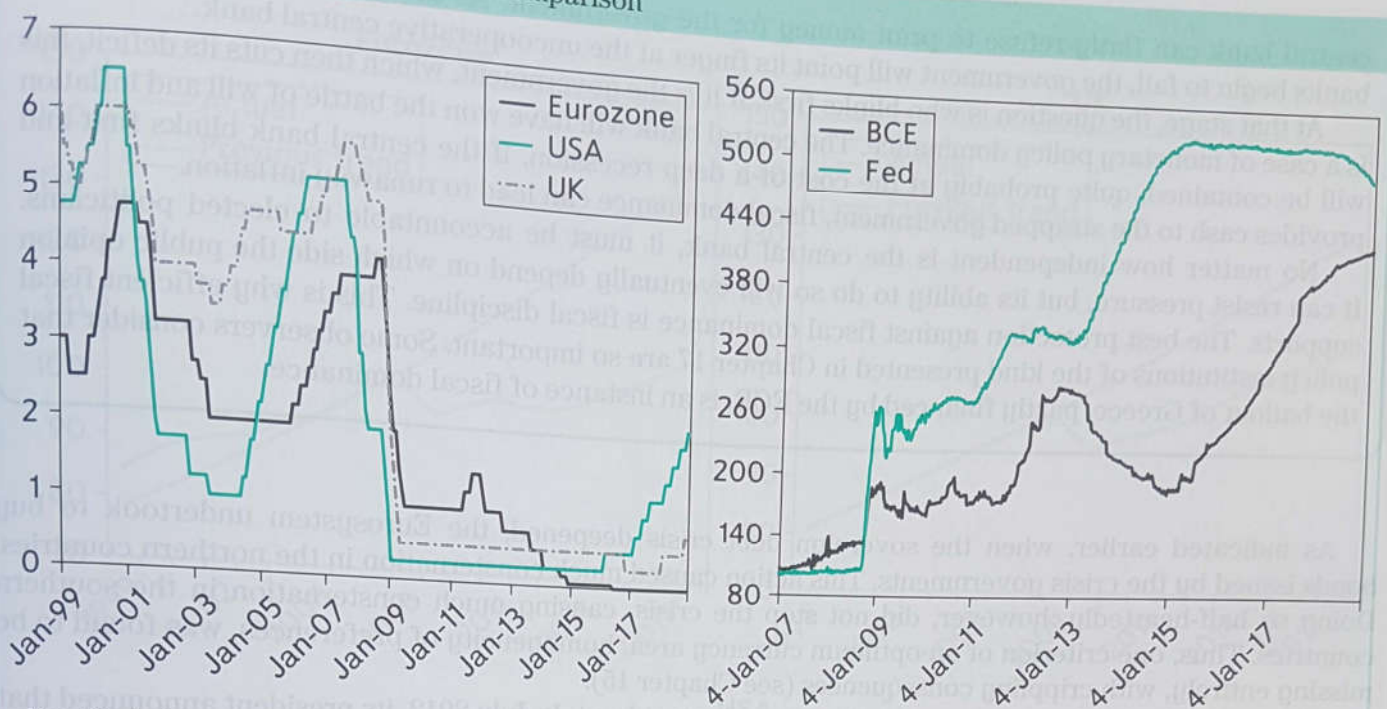
The Chairman of the ECB, Jean-Claude Trichet, explained the July 2008 decision thus:

On the basis of our regular economic and monetary analyses, we decided at today's meeting to increase the key ECB interest rates by 25 basis points. . . . Inflation rates have continued to rise significantly since the autumn of last year. They are expected to remain well above the level consistent with price stability for a more protracted period than previously thought. . . . Against this background and in full accordance with our mandate, we emphasise that maintaining price stability in the medium term is our primary objective and that it is our strong determination to keep medium and long-term inflation expectations firmly anchored in line with price stability. This will preserve purchasing power in the medium term and continue to support sustainable growth and employment in the euro area.

Press conference, 3 July 2008

Commodity prices, including oil, had been rising for months, which was filtering down to higher inflation. The ECB chose to fight inflation at a time when the world was descending into the worst financial crisis in several generations. Of course, awareness of the gravity of the forthcoming situation was still limited, but the two other central banks were obviously more worried than the ECB. And they turned out to be right.

In order to deal with the freezing of the interbank market in the wake of the collapse of Lehman Brothers, the ECB undertook to lend directly to banks, face to face rather than through the market. Panicked banks wanted to amass vast amounts of liquidity to avoid the fate of Lehman Brothers, which fell because it could not borrow the money necessary to satisfy its clients who wanted to withdraw the funds that they had entrusted with the bank. The ECB responded. Within a few weeks, the size of its balance sheet – which measures the total amount of its loans – increased by an unprecedented 40 per cent. The right-hand chart in Figure 19.11 shows that, during the same period, the Federal Reserve (and the Bank of England, not shown) allowed their balance sheets to more than double. In 2011, when the recovery proved weak (and the Eurozone was entering a second recession), the banks were still too fragile to lend much to their customers. Having brought the policy rates to nearly zero, the Fed (and the Bank of England) undertook a new strategy, Quantitative Easing (QE). QE consists in providing very large amounts of liquidity to the banks to encourage them to increase lending and thus support the recovery. In the event, they further doubled

Figure 19.11 Monetary policies: a comparison

Note: The balance sheet sizes are presented as indices normalized to 100 in January 2007.

Sources: European Central Bank, Federal Reserve Board, Bank of England.

the size of their balance sheets. Once again, the ECB was slower to react. It first allowed its loans to banks to decline. Then, two years after its counterparts, it also adopted QE. Using the *IS-MP-IRP* framework, in view of the combination of restrictive fiscal policies (Figure 19.10) and slow monetary policy action in the Eurozone, it is not surprising that the recovery has been delayed, as shown in Figure 19.3.

We have seen why governments were led to adopt contractionary fiscal policies, but what about the ECB? It insisted that price stability was its main priority and that it was not acting as lender of last resort to governments and banks. Its prudence reflected deep disagreement among member countries. Somewhat schematically, one can say that the northern countries, not under market pressure, were opposed to many of the central bank innovations. They worried that the risk inherent in these actions could create losses at the ECB. Since all Eurozone countries share ECB benefits and losses, they feared that they would have to pay for the mistakes of others. Most of the southern countries were mired in the crisis and did not understand that the ECB was being so prudent. This divergence of opinions, which reflected the asymmetry of the economic situation, considerably constrained the Eurosystem. At stake was the notion of policy dominance, which is presented in Box 19.7. The ECB was very concerned to give the impression that its independence was being eroded. Yet, at a time when inflation was very low, and even briefly dipped into negative territory, there was no risk to price stability, only a second recession.

Box 19.7 Monetary or fiscal dominance?

As explained in Chapter 16, high inflation invariably occurs when the central bank is forced to finance large budget deficits. This observation is the reason why central bank independence is essential. But what does 'forced' really mean? The issue is quite subtle.

Imagine an independent central bank deeply committed to price stability. Now imagine that its government is fiscally undisciplined and accumulates a big public debt as it runs large budget deficits. Sooner or later, the government will lose market access. Plagued by growing risk premia, domestic interest rates will rise. This will bring about a recession and quite possibly destabilize the banking system. Financial markets will crumble too and the exchange rate will begin to depreciate. An independent

central bank can flatly refuse to print money for the government. As the situation deteriorates and banks begin to fail, the government will point its finger at the uncooperative central bank.

At that stage, the question is who blinks first. If it is the government, which then cuts its deficit, this is a case of monetary policy dominance. The central bank will have won the battle of will and inflation will be contained, quite probably at the cost of a deep recession. If the central bank blinks first and provides cash to the strapped government, fiscal dominance can lead to runaway inflation.

No matter how independent is the central bank, it must be accountable to elected politicians. It can resist pressure, but its ability to do so will eventually depend on which side the public opinion supports. The best protection against fiscal dominance is fiscal discipline. This is why efficient fiscal policy institutions of the kind presented in Chapter 17 are so important. Some observers consider that the bailout of Greece, partly financed by the ECB, is an instance of fiscal dominance.

As indicated earlier, when the sovereign debt crisis deepened, the Eurosystem undertook to buy bonds issued by the crisis governments. This action caused much consternation in the northern countries. Doing so half-heartedly, however, did not stop the crisis, causing much consternation in the southern countries. Thus, one criterion of an optimum currency area, homogeneity of preferences, was found to be missing entirely, with crippling consequences (see Chapter 15).

Ultimately, the ECB ended the crisis, its acute phase at least. In July 2012, its president announced that 'the ECB is ready to do whatever it takes to preserve the euro'. This announcement was understood as a promise to buy as many crisis countries' public bonds as necessary to bring down the interest rates, which happened as shown in Figure 19.8. In September 2012, this announcement was formalized with the Open Market Transactions (OMT) programme. This was a drastic step because it could be construed as financing deficits.¹¹

As Figure 19.8 shows, the effect was both immediate and long-lasting. Even though the ECB did not actually make any purchases under the OMT programme, the spreads still declined quite dramatically. The statement by the ECB that it was accepting its role as lender of last resort to national governments moved the Eurozone from a bad to a better equilibrium. This is how things work in a world of multiple equilibria.

Since then, an emboldened ECB has set up other programmes designed to reduce financial fragmentation. Eventually, it adopted the QE strategy. It explicitly stated that QE was 'within the mandate' since inflation was below the official target but, in practice, it acted to revive the Eurozone economy. This did not stop some lawyers asking the German Constitutional Court to rule that OMT was against the constitution. A very ambivalent court passed the case on to the European Court of Justice, which ruled in favour of the ECB.

19.3.5 Outcome

The combination of austerity-oriented fiscal policies and a monetary policy long 'behind the curve' of financial market panic means that the Eurozone differs from comparable countries. Figure 19.12 compares the evolution of the GDPs of the Eurozone, the UK and the USA. In each case, the evolution is shown alongside the corresponding long-run trend. Both GDPs and trends are indexed to take the same value in 2007, the year before the first crisis. In all three countries, the 2009 recession unhinged GDP from its secular trend. It shows that the gap between actual and trend is larger in the Eurozone, and has kept growing ever since 2009 while, in the UK and the USA, it has stabilized.

Both monetary and fiscal policies can be related to the primacy of the price stability objective. This is quite directly so for monetary policy. For fiscal policy, the link is the fear of fiscal dominance. It is understandable, then, that monetary and fiscal policies be firmly oriented towards price stability. Has price stability been more under threat in the Eurozone than in the UK and the USA? Figure 19.13 shows that this has not been the case since 2009. Of course, one can argue that price stability has been better achieved in

¹¹ Opposition came in the form of a complaint lodged with the German Constitutional Court; see Box 16.5.

Figure 19.12 Real GDP level (Index: 100 = 2007)

Note: The trend corresponds to the average growth rate observed during 1960–2007.

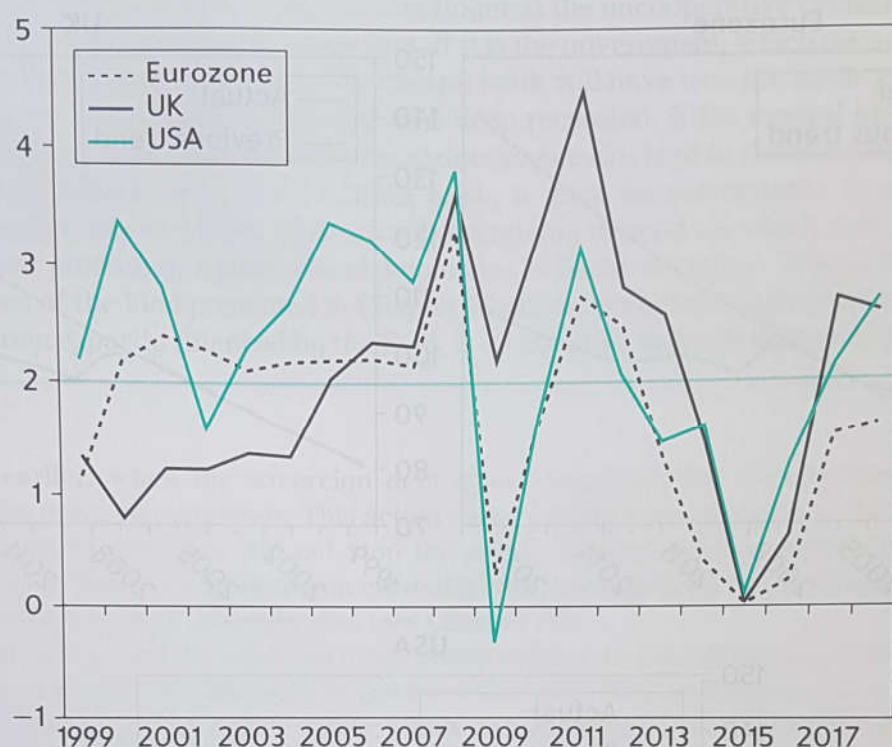
Source: AMECO, European Commission.

the Eurozone precisely because of the chosen policies. But then inflation has consistently been significantly below 2 per cent, in fact it has undershot the 'below but close to 2 per cent' target. Missing the target from below is an underachievement, which had a price: a protracted recovery.

19.4 Banks and public debt

19.4.1 Banks and public debts are special

Recall from Section 18.4.1 that, among all financial institutions (stock markets, bond markets, investors, hedge funds, brokers, etc.) banks are special. Nearly every household and firm holds a bank account, sometimes several of them. They usually believe that their banks are perfectly safe whereas banking is all about risk taking. This belief is rooted in the fact that banks are regulated and supervised. Yet, no matter how wise supervision and regulation are, there will always be instances when banks fail. When it happens,

Figure 19.13 Inflation rates 1999–2018 (% per annum)

Source: Economic Outlook, OECD.

the authorities cannot just let a bank disappear, leaving countless customers in disarray. This is not the case with other segments of financial markets, which are well known to be involved in risky business. Some investors may fail to appreciate just how much risk they take, but they are keenly aware that investments can sour, and they act accordingly.

Likewise, there is a big difference between public and private debts. Public debts are usually considered the safest asset in a country. A debt is a promise to pay. To that effect, private debtors must dedicate a part of their present and future incomes to honour their commitments. If they do not, they face grave consequences, including jail. Governments are different for two reasons. First, their incomes come from taxes, which can be raised as need be, within limits of course. Second, governments do not go to jail, they change the law and can legally default. The upshot is that public debts are considered safe because they are guaranteed by taxes, not just today but over the decades to come since governments are not expected to disappear. Still, however, public debts are risky when they are big enough to strain the taxing ability of the government. The risk is a default, which can be partial, for example when the government announces that it will pay only a part of what it owes. When the debt is mostly held domestically, a default will hurt the voters, which is a strong deterrent. But when the debt is largely held by foreigners, it seems almost too easy to just default. In fact, it is not so easy. First, foreigners can take a government to court. Even though the tradition is that governments cannot be punished by foreign courts – this is the principle of ‘sovereign immunity’ – it is not an absolute protection and the jurisprudence is moving against sovereign immunity, at least in the advanced countries. Enforcement is often difficult, though. Second, defaulting governments usually lose access to the financial markets, which imposes a straitjacket on their future ability to run deficits. All in all, public debts are normally considered as safe – until they are not. Multiple equilibria arise when the lenders conclude that a government may be tempted to default, which is precisely what triggered the Greek crisis and its contagious consequences.

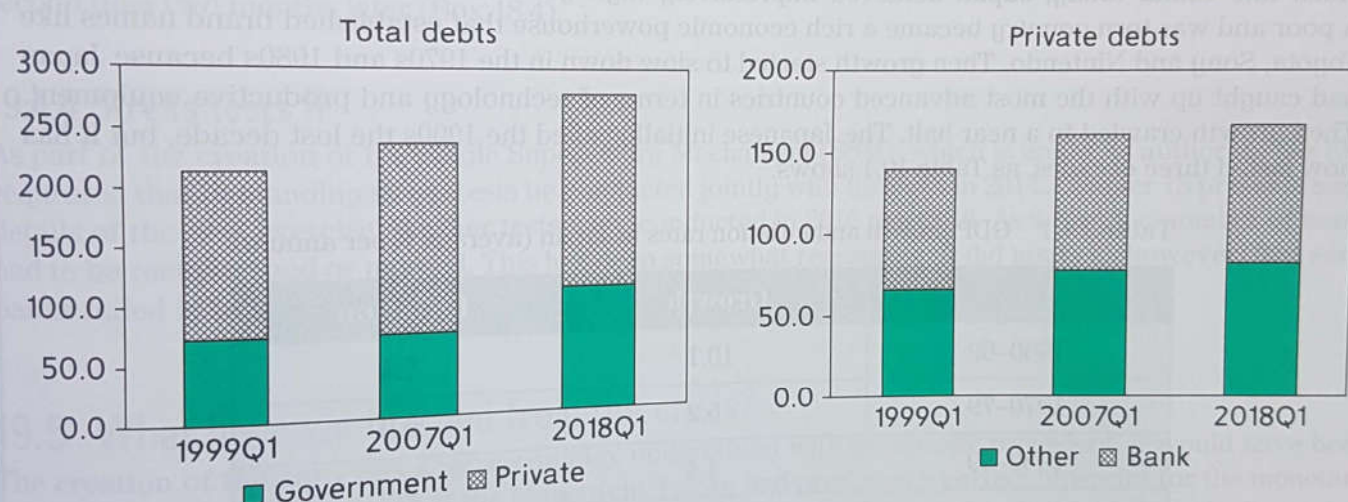
If we think of multiple equilibria as the most serious threat of crisis, we realize that the biggest risks are:

- Bank lending, because banks – at least the large ones – cannot be left to disappear, which encourages them to take risks
- Public debts, because governments may feel that a default is their best option.

Figure 19.14 presents the evolution of debts among the developed countries at three points in time: in the first quarter of 1999, when all seemed quiet, in the first quarter of 2007, just before the global financial crisis, and in the first quarter of 2018, the latest available observation. Debt is measured as a percentage of GDP. The left-hand chart shows that total indebtedness has continuously increased, even after the crisis, to reach about 275 per cent of GDP in 2018, a pretty impressive size. Between 1999 and 2007, the increase was entirely due to private (households and firms) borrowing. Since 2007, most of the increase has come from public borrowing. Public indebtedness is now above 100 per cent of GDP for the advanced countries. In the emerging market countries, indebtedness has increased from 38 per cent to almost 50 per cent. The level is much lower, but it does not mean that there is no room for concern. In a number of emerging market countries, enforcing debt repayment is less straightforward than in the advanced economies because commercial law can be limited and courts less than fully effective. This is why lenders are less willing to grant credit and may become worried at much lower levels of indebtedness.

Next, it matters who has been doing the lending. The right-hand chart shows that bank lending to the private sector rose fast before 2007 and has since stabilized at about 80 per cent of GDP. If this seems reassuring, it remains that bank lending to the emerging market countries has risen from 67 per cent of GDP to 111 per cent since 2007. Bank lending to these countries is another cause for concern.

Figure 19.14 Debts in the advanced economies (% of GDP)



Source: Bank for International Settlements.

19.4.2 The doom loop

Many European banks suffered heavy blows during the global financial crisis. Some had bought into the US mortgage market, as explained in Chapter 18. In other countries, chiefly Ireland and Spain, the cause was home grown. Excessive bank lending led to local overheating of the housing market; when the bubble burst and house prices promptly fell, many borrowers could not, or would not, service loans whose values were higher than those of the houses they had bought. As a result, in 2008 many governments injected resources into their banks. Everywhere, taxpayers asked why their governments could find money for banks and not for schools, hospitals, and so on.

Next, the 2009 recession made it harder still for borrowers in precarious economic conditions to service their debts. The last straw was the sovereign debt crisis. Many banks were holding government bonds, whose prices were falling sharply. In parallel, governments had already seen their debts rise during the 2009 recession and therefore were facing a delicate financial situation. The last thing they wanted was to face another bank crisis, which would force them to pour more money into banks, thus further angering taxpayers.

The outcome was the 'doom loop'. Governments saw to it that supervisors viewed the situation of stricken banks with sympathy. In return, banks were 'encouraged' to buy public bonds as a means of upholding their value. Greek banks normally held large amounts of Greek government debt, German banks held German

public debt, and so on. As the crisis deepened, the share of public national debt in the portfolios of banks continuously increased, another symptom of the fragmentation of the Eurozone banking system already described in Chapter 18.

The doom loop thus locked governments and their banks in a dangerous embrace. Banks depended on forgiving government supervision but also on their countries' public debt reputation. Governments needed banks to support their bonds and were highly motivated to help them. As long as the good equilibrium prevailed, calm would be maintained. Unfortunately, a bad equilibrium loomed. At any moment, the financial markets could stop financing a government and the attendant fall in bond prices would trigger a bank crisis. This is what happened in Greece and in Portugal. Alternatively, the markets could consider a bank doomed. The bank would quickly need public support, which would create a fiscal crisis. This is what happened in Ireland and Spain. Other countries too could have fallen in the bad equilibrium. Even if the good equilibrium were to prevail, the precedent of the Japanese crisis of the early 1990s, briefly described in Box 19.8, meant that the situation was precarious indeed.

Box 19.8 Japan's lost decade(s) and zombie banks

Much like China today, Japan achieved impressively high growth rates in the 1950s and 1960s. A poor and war-torn country became a rich economic powerhouse that established brand names like Toyota, Sony and Nintendo. Then growth started to slow down in the 1970s and 1980s because Japan had caught up with the most advanced countries in terms of technology and productive equipment. Then growth crawled to a near halt. The Japanese initially called the 1990s the lost decade, but it has now lasted three decades, as Table 19.1 shows.

Table 19.1 GDP growth and inflation rates in Japan (average % per annum)

	Growth	Inflation
1960–69	10.1	5.4
1970–79	5.2	9.0
1980–89	4.4	2.6
1990–99	1.6	1.2
2000–09	0.5	–0.3
2010–2019	1.4	0.6

Note: Forecasts for 2018 and 2019.

Source: *Economic Outlook*, OECD.

In the early 1990s a bubble in asset and housing prices, fed by reckless bank lending, burst. A recession dutifully followed. The Japanese authorities reacted by bringing the interest rate to zero and by adopting strongly expansionary fiscal policies. Surprisingly, it did not succeed in bringing growth back. It was gradually realized that a string of weak governments had not forced near-bankrupt banks to restructure. 'Zombie banks', as they were called, were unable and unwilling to lend. As a result, monetary policy was unable to restart the economy, since it mostly operates through bank credit. More surprising was the ineffectiveness of fiscal policy; maybe it was not expansionary enough to compensate the collapse of bank credit. Eventually, the zombie banks healed or disappeared but Japan has not been able to return to satisfactory growth (its declining demography is often cited as a reason). The result is that Japanese public debt, at about 240 per cent of GDP, is the world's highest.

19.4.3 Stress tests I

In the wake of the global financial crisis, the situation in the USA was no better than that in the Eurozone. However, fairly early on, the government decided to bite the bullet and avoid what had happened in Japan. It organized a series of stress tests. These tests, already mentioned in Chapter 18, examined what happens to a bank in response to adverse outside events. The tests were strict and those banks found to be fragile were ordered to take remedial action, mostly to increase their capital, to the consternation of their shareholders. Many of the largest US banks or subsidiaries of European banks were found unfit and complied immediately. The US authorities now conduct stress tests annually. The result is that US banks are considered reasonably safe.

In the Eurozone, after much delay, the newly created European Banking Authority (EBA) was also tasked with carrying out stress tests.¹² A first wave was carried out in 2010. The results identified six banks as failing the test and therefore in need of recapitalization. Importantly, the stress tests did not include any risk of sovereign default. If anything, these tests raised the level of market anxiety because they were seen as proof that governments, which specified which 'outside events' would be simulated, were first and foremost interested in 'proving' that their banks were healthy and that national debts were beyond suspicion. A second wave was carried out a year later and the results released in July 2011, just when the public debt crisis was worsening. This time, the risk of a sovereign default was included in the simulations, but the size of the default (15 per cent) was seen as much too small at a time when the Greek debt was selling at half its value. Again, most banks were deemed in good health, including Dexia, which had to be rescued for the second time two months later (Box 18.4).

19.4.4 Stress tests II

As part of the creation of the Single Supervisory Mechanism (SSM), which is under its authority, the ECB requested that demanding stress tests be conducted jointly with the EBA in 2014. Chapter 18 presents some details of the new exercise. Further tests were conducted in 2015 and 2016. As a result, a number of banks had to be recapitalized or merged. This has been somewhat reassuring. It did not help, however, that some banks failed in Italy in 2017.

19.5 What have we learned from the crisis?

The creation of the euro was a most complex undertaking with no historic precedent. It would have been an extraordinary piece of luck if the Maastricht Treaty had produced a perfect blueprint for the monetary union. In addition, political considerations, heterogeneous preferences and unavoidable technical mistakes were sure to interfere. The monetary union was always bound to need continuous improvements as its flaws are revealed and understood, and much has been done since 2010. It is perhaps sad that crises are needed to stimulate reforms, particularly as the flaws have already been identified. It is even sadder that some improvements are still not complete or correct. This section examines what has been learned from the debt crisis and appraises the most important changes that have been adopted as a consequence.

19.5.1 Fiscal discipline and public debt

The need for fiscal discipline was recognized early on, leading directly to the creation of the Stability and Growth Pact. Chapter 17 explains that the pact suffers from a fundamental contradiction: it seeks to impose discipline on national governments but member countries maintain sovereignty in this matter. Over the years, the pact has been 'strengthened', which has involved encroachments on national budgetary sovereignty. Europe, however, is not a federation and there is no central government. The Commission cannot bypass national governments.

In principle, a clean solution would be to create a fiscal union, whereby many government responsibilities are transferred to a central authority with its own resources and some power over national governments.

¹² The EBA is explained in Chapter 18.

This is a tried and tested solution in many federations such as Australia, Canada, Germany and the USA. 'Going federal' in small steps has been suggested many times. It may happen – eventually – but is facing strong political resistance. It is opposed, often obliquely, by most governments (and parliaments) loath to give up, or simply share, power. It is also opposed by important segments of public opinion. Indeed, the crisis has given both 'Europe' and 'Brussels' a bad name. Even if people do not quite grasp the details of the crisis, it is plain for all to see that its management has been awkward, as recounted throughout this chapter. Box 19.9 shows that the impact on trust in the EU has been dramatic. Under such 'eurosceptic' conditions, it is most unlikely that a new major step of sovereignty transfer can be taken.

Box 19.9 Impact of the crisis on public opinion

Table 19.2 quotes results from Eurobarometer, a public opinion poll conducted throughout the EU twice a year on behalf of the European Commission.¹ It displays the proportion of respondents who answered that 'they tend to trust the EU' in the spring of 2007 (before the crisis), in 2014 (in the midst of the crisis) and in 2018 (most recently available). Results are shown for the EU as a whole as well as, in increasing order for 2018, for the four countries that polled the four lowest levels of trust, the four countries in the middle and the four countries with the highest level of trust. The table shows a massive loss in trust in 2014, which has been only partially recovered. The fall has been highest in countries close to the crisis.

Table 19.2 Public opinion and the EU (percentage of respondents who 'tend to trust the EU')

	Spring 2007	Spring 2014	Spring 2018
EU	57	31	42
Four lowest in 2018			
Greece	63	24	27
UK	36	16	30
France	51	34	34
Italy	58	24	36
Four in the middle in 2018			
Poland	68	41	46
Belgium	73	45	47
Germany	56	30	49
Latvia	47	42	49
Four highest in 2018			
Luxembourg	62	35	56
Denmark	65	45	57
Portugal	65	28	57
Lithuania	65	58	66

Sources: Eurobarometer 67, 81 and 89.

¹ Results of Eurobarometer polls are available at <http://ec.europa.eu/commfrontoffice/publicopinion/index.cfm>.

The implication is that the Eurozone will have to remain 'messy' – neither a federation nor a union of fully sovereign states. This situation directly affects fiscal discipline. Chapter 17 explains the current working of the strengthened Stability and Growth Pact, which seeks to increase the power of the Commission through reverse qualified majority voting (RQMV). It also notes that the Treaty on Stability, Coordination and Growth (TSCG) opens the door to the possibility of better fiscal institutions. Meanwhile, fiscal discipline remains a work in progress.

A most disquieting legacy of the crisis is the level of public debts. Public indebtedness has increased in every Eurozone country since 2009 (Figure 19.5). In some cases (Cyprus, Greece, Ireland, Portugal, Slovenia and Spain), increases in public debt have been very large indeed. A very high public debt creates serious difficulties:

- Servicing it requires high tax revenues
- It limits the potential of counter-cyclical fiscal policy
- It represents a potential challenge to central bank independence
- It is a source of asymmetry within the Eurozone as highly indebted countries differ in a very important way from countries with lower indebtedness
- It creates a vulnerability in the presence of multiple equilibria
- It acts as a brake on growth (although this view is controversial).

Whether the debt legacy is bearable is an open question, which has triggered heated debate. Numerous controversial solutions have been put forward – two of which are reviewed below.

Eurobonds

One idea is to create Eurobonds, collectively issued and guaranteed by Eurozone governments. They could replace some current national bonds or could be issued to finance future deficits.¹³ Eurobonds have several appealing features:

- They would cement solidarity
- A single market for Eurobonds would develop, which could become enough to compete effectively with US Treasury bonds as the instrument of choice for other countries wanting to accumulate foreign exchange reserves
- Being guaranteed by all Member States, Eurobonds would probably be considered very safe, in contrast to bonds of high-debt countries
- They would end the fragmentation of Eurozone financial markets.

Opponents of Eurobonds observe that it would imply that one country would underwrite the debt of another government. What then would prevent a government from running deficits year in, year out? The deficit bias, presented in Section 17.2.5, has already proved to often be irresistible when the government remains responsible for its debt. What would prevent the bias when the responsibility is shared? Eurobond issuances require an unbreakable guarantee that the bias will be contained, but such a guarantee is difficult to imagine. The Eurobonds idea cannot really be divorced from the fundamental issue of how to firmly establish fiscal discipline in each and every Eurozone member country. This is why the creation of Eurobonds probably will have to wait until the fiscal discipline problem is solved once and for all, one way or another.

Public debt restructuring

The seemingly easiest way to deal with large debts is to cancel them, at least partly. Debt restructuring, as this is called, has been used frequently over many decades. It raises a host of serious issues. It imposes a

¹³ One creative proposal is that countries be allowed to issue Eurobonds – called 'blue bonds' – to a value of up to 60 per cent of their GDP. The rest, 'red bonds', would remain purely national, be inferior to 'blue bonds' and offer no collective protection. Thus the collective signature would guarantee only the first tranche, which is reasonably safe. This proposal, made by Jakob von Weizsäcker and Jacques Delpla, is available at: <http://www.bruegel.org/publications/publication-detail/publication/509-eurobonds-the-blue-bond-concept-and-its-implications/>.

cost on bondholders. Beyond the legality and fairness of the process, it could trigger a new crisis. As noted above, banks have acquired large amounts of public bonds. A sizeable restructuring could destroy some banks and require national governments to once more borrow, this time to finance the rescues, which would defeat the purpose of the exercise. In addition, governments that default find it difficult to borrow in the future. Finally, it is sometimes felt that a default would break the Eurozone.

Opposition to debt restructuring is very strong. When the Greek debt crisis began, restructuring was proposed and immediately rejected by many governments and by the ECB. Yet, two years later, a significant portion of the Greek debt was 'voluntarily' cancelled by banks in a process called Private Sector Involvement (PSI), which is presented in Box 19.10.

Box 19.10 Restructuring the Greek debt

'In regard to your question on so-called rescheduling, "haircuts" and so forth . . . we are very clear we don't trust that, provided the two first conditions [implementation of Troika conditions and strict Troika surveillance] I have mentioned are there, there is a need for restructuring or for haircuts. And we would say it is not appropriate,' said Jean-Claude Trichet, then President of the ECB (interview with the Canadian Broadcasting Corporation, 6 June 2011).

Trichet made this observation following the 'Deauville statement': in October 2010, recognizing that things were not going well in Greece, Angela Merkel and Nicolas Sarkozy came back from a long walk along the sea and opined that some debt restructuring was unavoidable. This statement took everybody by surprise and sent a huge shockwave through the financial markets. Right from the start, the markets had thought that, though painful for investors, such a step was inevitable – hence the risk premia seen in Figure 19.8 – but the ECB and national governments had been strongly opposed to it. Now, all of a sudden, debt restructuring seemed possible. But a restructuring needs to be carefully prepared, and in total secrecy to avoid market panic. Telling investors that they will lose money is a sure way to create a panic. Obviously, the statement was merely an idea imagined on the Deauville beach, not a carefully thought-through project.

The Deauville statement met with a great deal of resistance, and not just from the ECB. Meanwhile other countries were being hit by contagion, Greece had entered into an ever deeper recession and its debt was rising relentlessly. Indeed, the bailout had not been present but a loan that increased the debt further, far above its level before the crisis. The logic of debt restructuring was becoming more compelling. After long negotiations with banks and groups of investors, the restructuring, called Private Sector Involvement, was agreed at the end of 2011. Almost all of the debt owed to private creditors, about half of the total, was reduced by some 75 per cent. Investors were willing to accept the certainty of a large immediate loss rather than the uncertainty of a future, possibly even larger, loss.

Among the losers were two large Cypriot banks, which had accumulated a vast amount of Greek bonds. A year later, these banks collapsed and Cyprus became the next country under a Troika programme.

The high level of debt in several countries demonstrates that the crisis cannot be declared over. One way or another, these debts will have to be reduced. The official plan A is fiscal discipline. Plan A necessitates large budget surpluses over a period of many years, decades in fact. Many believe that such a situation is not achievable and fear that a further crisis will be needed to force the hand of national governments (and the ECB). Officially, no plan B exists. A number of proposals have been mooted but officials deem them unrealistic. The likely outcome is simply muddling through.

19.5.2 Bank fragility

The other lesson to be (re)learned is how fragile banks are. At the global level, new regulations have been put forward by the Basel Committees and enacted in national laws. Supervision has been strengthened too, often by delegating it to central banks. Chapter 18 provides the details.

Chapter 18 also explains why the Eurozone banking system remains in a delicate situation. The crisis has led to a surprising degree of fragmentation of the system. The policy response, the Banking Union, is a major step forward, yet an incomplete one. Only the large banks are part of the Single Supervision Mechanism (SSM). As for the Single Resolution Mechanism (SRM), it is more a getting together of national regulators than a single mechanism with a single authority. The resolution fund is to be built over a long period of time and its eventual size is unimpressive. Furthermore, the ECB is not yet quite prepared to act resolutely as a lender of last resort. Time will tell whether another crisis is needed to complete these steps.

19.5.3 Governance

A spectacular feature of the crisis has been its *de facto* management by the Eurozone's two largest countries, France and Germany, and then only when they could agree. The Commission has been largely passive. Tension has always existed between the community principle and intergovernmentalism. Chapter 2 explains that, in principle, the Commission assumes the executive role and Member States jointly hold the ultimate authority since the Council acts as the legislative branch of European government. The community principle is that the Commission takes initiatives and member governments approve or disapprove. Intergovernmentalism instead relies on governments to take and negotiate initiatives among themselves. The crisis has witnessed a shift to intergovernmentalism, often reduced to a dominating role by the two largest countries.

The obvious reason for this shift is that a crisis requires prompt decision making while the 19 Eurozone countries cannot collectively deliberate effectively. In addition, the Commission's mandate is not limited to the Eurozone, so it has no particular authority in terms of Eurozone affairs. In order to improve effectiveness, the Lisbon Treaty created the post of President of the Council, but his or her brief also extends to the whole EU.

The crisis has thus made it clear that the Eurozone needs its own system of governance. For a while, this role was assumed by the Eurogroup, which brings together the Finance Ministers of the Eurozone. However, given the importance of the issues that had to be addressed during the crisis, it was decided that the heads of state and government of the Eurozone countries would meet twice a year. This structure is obviously unable to handle emergencies, because of its size and of the frequency of its meetings, although they may decide to meet more often. At any rate, it does represent a symbolic step given the widespread reluctance to formalize a 'two-speed Europe'.

A number of other propositions have been advanced and the debate is sure to continue. For instance, it has been suggested that a new position be created: the Economic and Finance Minister of Europe. This person would have some, as yet undefined, authority to enforce fiscal discipline in Member States, which may require a new Treaty.

19.5.4 Survival of the euro

Having observed the weaknesses inherent in the euro architecture, a number of people have concluded that the Eurozone is doomed. Several arguments have been presented to back this claim up:

- Europe is not an optimum currency area (see Chapter 15). Right from the start it was an experiment doomed to fail.
- Countries with high debts need to grow fast to generate tax revenues. If that is not possible, debt restructuring will be unavoidable. However, defaulting countries typically undergo a sharp exchange rate depreciation, which provides the demand boost that they need to recover and grow. There is no room for depreciation in a monetary union.
- The crisis has exposed a gap between a well-functioning North and a badly wounded South. Solidarity between these groups has been strained, thus undermining one of the OCA criteria.
- Many international investors do not believe that the euro can survive. Whether they are right or not, this belief can become a self-fulfilling process, as explained in Box 19.2.

Powerful arguments are also presented from the opposite perspective, however:

- A break-up of the Eurozone would have catastrophic implications. Some countries would face a deep depreciation, which would make it difficult or even impossible to honour public and private debts

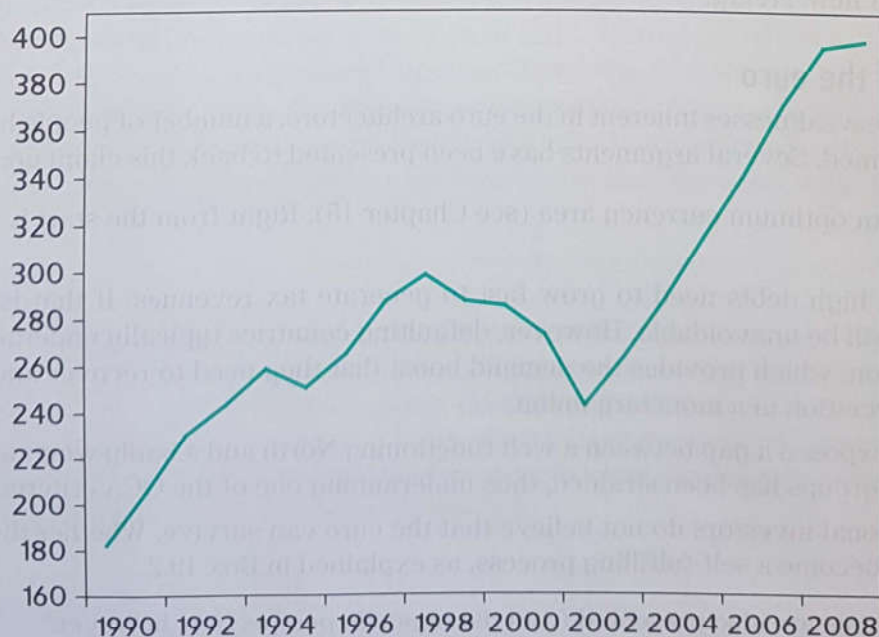
contracted in euros. The precedent of Argentina (see Box 19.11) illustrates how disturbing the situation can become. The other countries would face a strong appreciation, which would severely hurt their international competitiveness.

- A new currency would have to be printed and reintroduced. It took three years to introduce the euro and it is likely that reintroducing national currencies would also take a long time. How would transactions be carried out in the meantime?
- It may well be that some countries will have to default, but that does not require an exit from the Eurozone. As a part of the Eurozone, a country is protected from a simultaneous currency crisis involving serious risks for its banking system.
- There is no legal procedure enabling a country to leave – or to be expelled from – the Eurozone; adopting the euro was meant to be a one-way street.
- The crisis has made it clear that the euro architecture needs to be improved, and solutions do exist.
- The Eurozone may not be an optimum currency area, but neither is it hugely ill-suited to operating a common currency. Arguably, the bigger problem has been the mishandling of the crisis.

Box 19.11 Giving up a currency: Argentina in 2001

In 1991 Argentina declared that the peso would be worth US\$1 and that this parity would never be changed. The convertibility law, as the arrangement was called, was solid because it required that the central bank hold as many dollars as it had issued pesos. Such a full backing of the domestic currency was meant to make the arrangement unassailable, in theory at least. Over the next few years, inflation – Argentina's scourge for decades – disappeared and the economy grew quite fast, as Figure 19.15 shows. People came to see the peso and the dollar as equivalent currencies. However, because inflation did not quite decline to the US rate, Argentine goods became gradually too expensive and the economy started to suffer. Without the ability to depreciate and restore competitiveness, the situation became increasingly desperate. A political crisis set in and, in the midst of intense social turmoil, Argentina abandoned the convertibility law in late 2001 and defaulted on its public debt.

Figure 19.15 Argentina's real GDP (US\$ billion)



Source: World Development Indicators, World Bank.

The peso instantly lost half of its value. Millions of contracts set in dollars, from loans to rents and sales, were in total disarray. If they remained in dollars, borrowers – for example, people who rent their dwellings and large industrial producers with incomes in the depreciated peso – would become bankrupt. If they were switched into pesos, the losses to lenders, house owners and sellers would be immense. It took months, and a devastating banking crisis, to sort the situation out. GDP contracted by more than 10 per cent in 2002, after having declined by nearly 20 per cent over the previous five years. One reason was an abrupt fiscal policy contraction. Shut off from the financial markets and therefore unable to borrow, the government had to promptly close its deficit. There was a silver lining, however. The depreciation of the peso boosted Argentina's competitiveness and the economy turned around in 2003. From there on, it grew very fast.

In many respects, the Argentine case is similar to an exit from a monetary union. It shows how difficult it is to abandon a currency and also how helpful a depreciation can be. One difference with a monetary union is that, during the convertibility law years, the peso continued to circulate alongside the dollar: not all contracts were in dollars, vending machines accepted mostly pesos, and the peso did not have to be reintroduced from scratch.

Ultimately, the creation of the euro was partly justified by economic reasons and partly promoted for political reasons (see Chapter 15). Leaving the Eurozone would not represent a clear-cut economic gain in the long run and would entail a deep dislocation in the short run, which is why no government is likely to do so for economic reasons. Politically, one additional lesson from the crisis is that it has evidenced a deep determination to defend the euro. Many (including key officials of the government elected in 2015) believed that Greece would exit – and coined the expression Grexit. Grexit nearly happened in July 2015, but in the end the government stepped back from the brink. Table 19.2 shows how the EU lost the trust of Greek citizens but another Eurobarometer poll carried out in the Autumn of 2017 indicated that 66 per cent of the Greek citizens are in favour of being part of the Eurozone, despite the enormous hardship that they suffered.¹⁴ Still, political parties that oppose the EU and the euro appear to be on the ascendancy in nearly all countries.

19.6 Summary

Europe has experienced two successive crises: the global financial crisis that began in the USA, and the Eurozone sovereign debt crisis.

Bank deregulation in the 1980s and 1990s changed the US financial industry. In particular, it made it possible for banks to take more risk to achieve better profits. While banks were becoming more sophisticated, a segment of the market developed risky mortgage loans. Repackaged, these loans ended up in the hands of the world's largest and most highly reputed banks. When house prices turned down, this construction unravelled.

Central banks took vigorous measures to provide banks with liquidity and to cut interest rates. Governments too intervened quite forcefully. They used fiscal policy to avoid a protracted recession, deepening budget deficits. In many countries, they also bailed out banks, sometimes at great cost.

The result was a rapid increase in public debts, which led directly to the second leg of the crisis. Strikingly, this crisis has affected only countries within the Eurozone. Several reasons have been advanced to explain why. They either point to policies incompatible with Eurozone membership or to flaws in its architecture.

With financial markets in panic, the authorities vacillated for too long. National governments aimed at austerity policies that led to a double-dip recession without succeeding in stemming debt increases. The Eurosystem remained 'behind curve' for an extended period, more concerned about inflation than about the quickly deepening recession.

¹⁴ Source: Eurobarometer 88.

The ECB recovered the initiative by declaring its intention to buy, if needed, an indefinite amount of distressed public bonds. This declaration brought the acute phase of the sovereign debt crisis to its end.

All in all, the Eurozone's economic performance has been poor and inflation has declined significantly below the ECB's own definition of price stability.

The Eurozone banks and governments have been locked in a 'doom loop'. Banks bought large amounts of domestic public debt in return for lenient supervision. Governments faced the risk of yet another bank crisis, but the high debt levels reduced their ability to bail out banks in case of need.

The ECB has taken over the supervision function – for large banks only. The new European Supervisory Mechanism has conducted a series of stress tests and followed up by requesting the recapitalization of some weak banks. The fragmentation of European financial markets has declined but has not been fully eliminated yet.

The crisis has shown that the Eurozone construction suffered from important weaknesses. These weaknesses include the lack of fiscal discipline in some member countries, the absence of Eurozone-wide banking regulation, supervision and resolution, the ECB's difficult position as lender of last resort, and poor economic governance. Some progress has been achieved on all these fronts.

The legacy of very large public debts in a number of countries remains a major source of concern. Solutions exist but they remain politically divisive.

Self-assessment questions

- 1 Why did bank deregulation create the conditions for a financial crisis?
- 2 Why were subprime mortgage loans so dangerous?
- 3 Explain why the phenomenon of multiple equilibria may lead to self-fulfilling crises.
- 4 List the possible reasons why the sovereign debt crisis has been limited to the Eurozone.
- 5 Explain why banks and governments have been caught in a situation whereby they can weaken each other.
- 6 What are the possible reasons behind the outcomes shown in Figures 19.13 and 19.14?
- 7 What are stress tests? How are they related to trust in the banking system?
- 8 Explain the debate surrounding the fiscal multipliers.
- 9 What is the problem with large public debts?
- 10 What is the OMT programme? Why has it been so successful?

Essay questions

- 1 Why has the sovereign debt crisis spread only within the Eurozone?
- 2 Should subprime lending have been subject to rigorous consumer protection and, if so, what would you propose?
- 3 Imagine a break-up of the Eurozone. What might be the consequences?
- 4 Austerity has been a very controversial approach. What else could have been done?
- 5 Develop the case for (or against) a fiscal union.

References and further reading

References

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